

Drawing Index

These sheets are a document set and should not be separated. Electrical information and references are contained on all sheets.

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These equipment installation drawings indicate the placement and interconnection of the listed equipment components. These drawings are not construction or site preparation drawings. Customer remains ultimately responsible for preparing the site to accommodate the installation and operation of such equipment in compliance with GE Healthcare's written specifications and all applicable federal, state, and/or local requirements.

* REQUIRED REFERENCE *

Millennium VG
Preinstallation Manual
2302042-100

A mandatory component of this drawing set is the GE Healthcare Preinstallation manual. Failure to reference the preinstallation manual will result in incomplete documentation required for site design and preparation.

Preinstallation documents for GE Healthcare products can be accessed on the web at:

<http://www.gehealthcare.com/company/docs/siteplanning.html>

GE Healthcare



Nuclear Medicine Site Planning



imagination at work

Customer Site Readiness Requirements

- Any deviation from these drawings must be communicated in writing to and reviewed by your local GE Healthcare Installation Project Manager prior to making changes.
- Make arrangements for any rigging, special handling, or facility modifications that must be made to deliver the equipment to the installation site. If desired, your local GE Healthcare Installation Project Manager can supply a reference list of rigging contractors.
- New construction requires the following: 1. Secure area for equipment, 2. Power for drills and other test equipment, 3. Capability for image analysis, 4. Restrooms.
- Provide for refuse removal and disposal (e.g. crates, cartons, packing)
- Contact a radiation physicist or consultant to specify radiation containment requirements.

GE Equipment Delivery Requirements

Items 1 through 8 on the GE Healthcare Site Readiness Checklist are REQUIRED to facilitate equipment delivery to the installation site. Equipment will not be delivered if these requirements are not satisfied.

GE Healthcare Site Readiness Checklist						
GEHC Global Order # : _____			Customer: _____			
GEHC On-site Representative : _____			MI Supplier: _____			
Name of customer reviewed with : _____			Lead Installer: _____			
GEHC PMI : _____			Phone Number: _____			
Target Site Prep Completion Date: _____			Helper: _____			
The customer is responsible for proper site preparation and site readiness regardless of any GEHC inspections/assessments.						
Item #	Inspection Date	Storage: Is item ready?	Predict (Pre-ship) Is this item ready?	Verify (Delivery) Is item ready?	Validate (Mech Install) Is item ready?	Comments
1	Equipment installation drawings must match actual room size and must meet clearance requirements. Deviations that meet installation requirements may be red-lined, if red-lining is allowed by local code. Seismic requirements are identified on construction drawings.					
2	Delivery route to installation or storage area meets requirements and has been discussed and scheduled with the customer. Ensure floor protection is discussed, requirements identified, and will be available at time of delivery and installation.					
3	Rooms that will contain equipment, including storage areas, are dust free. Room security to prevent unauthorized access and theft has been discussed with customer. The customer is aware of these security issues, implications and responsibility.					
4	In room HVAC ductwork and units (in room) must be mechanically installed and dust free. Installation rooms appear to meet environmental conditions (see Further Definitions) and observed issues have been communicated to the customer. If being stored, storage area must meet PIM storage criteria.					
5	Ceiling grid is installed, Unistrut is located per the installation drawings, and permanent lighting is installed and operational.					
6	Floor is clean and prepared for final floor covering. Customer has verified floor leveling meets the equipment installation drawings and PIM specs and no visible defects are observed. Gantry and table baseplate are installed prior to delivery (if applicable)					
7	Access to a working phone at the facility for emergency use, including MR magnet delivery.					
8	All walls primed (final coat not needed on Day 1), and counter tops that will support equipment must be installed. No dust-producing cabinetry work in installation areas.					
9	Mechanical supplier has been provided with a set of equipment installation drawings for reference. For California, permitted construction drawings or PMI-specified installation drawings are required.					
10	Conduit/electrical cable ducting/dividers/ access flooring installed, with the exception of surface-mounted floor ducting. Wiring to the main disconnect panel is installed and compliant with equipment installation drawings or pre-installation manual.					

Issued Date: 7/9/07 Rev 11

GE Healthcare Technologies



Installation Services Design Center
Milwaukee, Wisconsin

SHEET TITLE: SITE READINESS
MODALITY TYPE: MILLENNIUM VG

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED APPARATUS, ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS. IT IS NOT TO BE USED FOR CONSTRUCTION PURPOSES. IT IS NOT TO BE USED FOR ACTUAL CONSTRUCTION PURPOSES, HOWEVER, AND THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
TYPICAL FINAL
INSTALLATION DRAWING

PROJECT	REVISION
7-28F	00
DATE:	06-10-08
DRAWN BY:	CPC
CHECKED BY:	CPC

REVISION HISTORY:

SHEET
C1

GE EQUIPMENT LISTING

EQUIPMENT ON ORDER FROM GE HEALTHCARE, INSTALLED BY GE HEALTHCARE, PER : NEITHER A QUOTE OR GON WAS ISSUED AT THE DATE OF THESE DRAWINGS

NOTE: LOCAL CONDITIONS MAY DICTATE THAT ITEMS IDENTIFIED IN THIS CATEGORY BE INSTALLED BY OTHERS.

EQUIPMENT CROSS REFERENCE CHART
 P = PREAPPROVAL
 C = CALCULATIONS/
 F = PENDING APPROVAL
 S = SPECIFICATIONS ONLY

ITEM NO.	QUANTITY ORDERED	REFER TO SHEET "D"	ITEM DESCRIPTION (* = EXISTING/REINSTALL)	WEIGHT	HEAT OUTPUT (PER HOUR)	DETAIL NO.	STRC PLAN	ELEC PLAN
①	1		ACQUISITION COMPUTER	68 lbs	1194 btu		AC	S
②	1		ACQUISITION MONITOR/KEYBOARD	81 lbs	409 btu			S
③	1		XELERIS WORKSTATION	55 lbs		M1014AV	VS	S
④	1		COLOR PRINTER				CP	S
⑤	1		UPS SYSTEM	33 lbs	4436 btu	R4504AA	UPS1	S
⑥	1		R-WAVE TRIGGER UNIT	19 lbs	170 btu	H2505EC		S
⑦	1		UPS SYSTEM	965 lbs	5099 btu	R4502JL	UPS	I
⑧	1		VG IMAGING SYSTEM GANTRY	6459 lbs	6484 btu	H2504LL H2504LT	H30 D0U	C
⑨	1		LIMIT OF TABLE TRAVEL					I
⑩	1		IMAGING TABLE	881 lbs				NMT
⑪	1		TABLE SWING PATH AND PLATE FOR COLLIMATOR EXCHANGE					I
⑫	2		COLLIMATOR STORAGE CART	1058 lbs		H2504LB		I

SCALE: 1/4" = 1'-0"

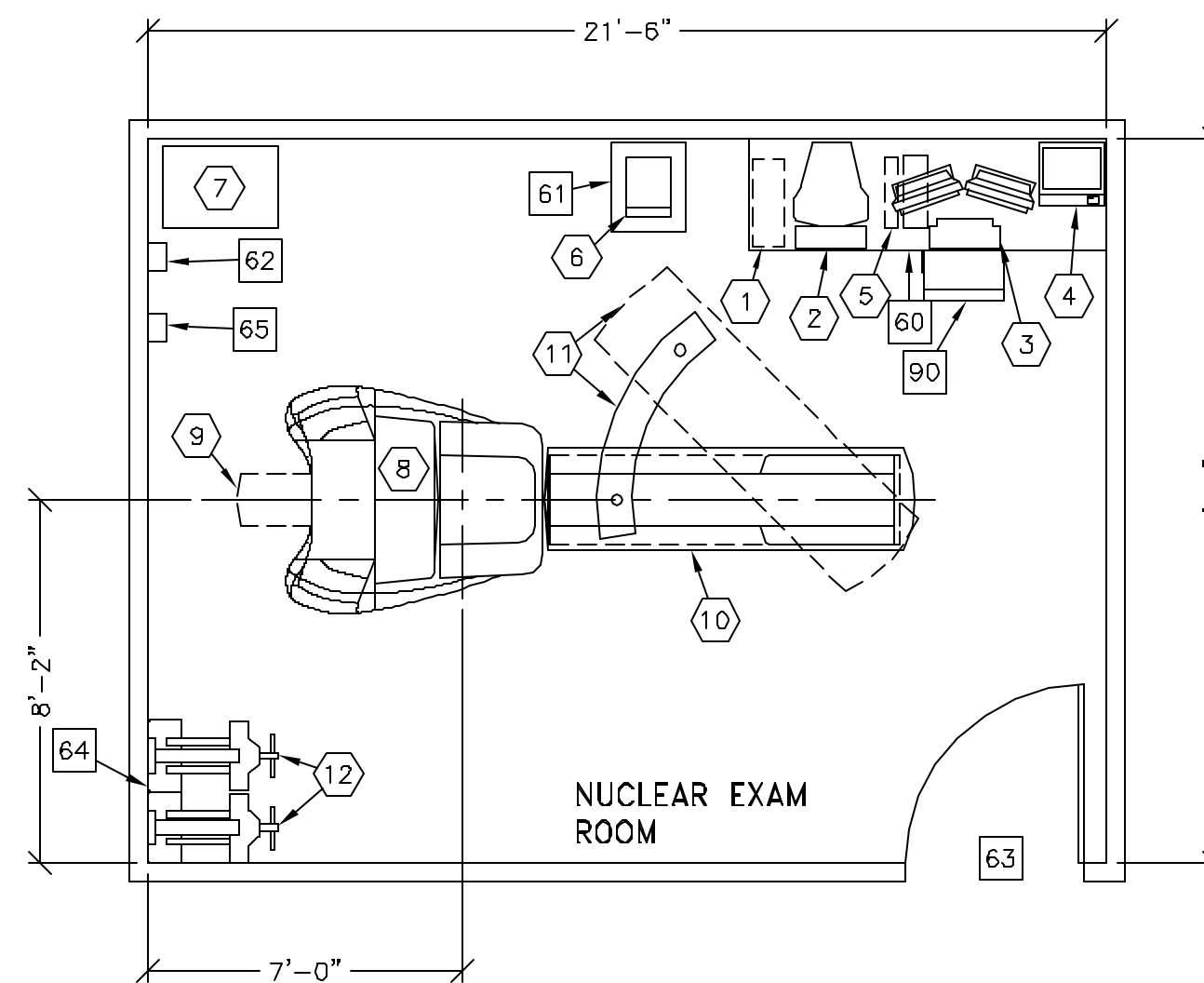
EQUIPMENT LAYOUT

RECOMMENDED CEILING HEIGHT = 8'-0"

This equipment layout indicates the placement and interconnection of the indicated equipment components. There may be federal, state, and/or local requirements that could impact the placement of these components. It remains the Customer's responsibility for ensuring the site and final equipment placement complies with all applicable federal, state, and/or local requirements.

IMPORTANT CUSTOMER READINESS ALERT:

THIS EQUIPMENT INVOLVES THE USE OF RADIOACTIVE ISOTOPES, INCLUDING THOSE SOURCES NECESSARY FOR EQUIPMENT CALIBRATION. APPROPRIATE REGULATORY COMPLIANCE AND LICENSING MUST BE ARRANGED BY THE CUSTOMER EARLY IN THE PLANNING PROCESS AND THEN DEMONSTRATED/AVAILABLE FOR EQUIPMENT INSTALLATION.



ANCILLARY ITEMS

CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS

ITEM NO.	ITEM DESCRIPTION (* INDICATES EXISTING)
60	TABLE
61	CART
62	DISCONNECT
63	MINIMUM DOOR OPENING FOR EQUIPMENT DELIVERY IS 48 IN. W x 78 IN. H (1219mm x 2032mm), CONTINGENT ON A 78 IN. (1981mm) CORRIDOR WIDTH
64	OPTIONAL WALL PROTECTION FROM COLLIMATOR CART, ALSO FINISHED FLOORING COULD BE SUBJECT TO DAMAGE DURING MOVEMENT AND BEING PULLED FOR A LONG PERIOD. SUFFICIENT FLOORING MUST BE USED TO PREVENT DAMAGE.
65	MAIN DISCONNECT CONTROL, GE CAT. NO. E4502SN

THE FOLLOWING ITEMS ARE AVAILABLE FROM GE HEALTHCARE TECHNOLOGIES. CONTACT YOUR LOCAL GE HEALTHCARE SERVICE REPRESENTATIVE FOR PRICING AND AVAILABILITY.

69	OPERATORS CHAIR
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GENERAL SPECIFICATIONS

- THE REQUIRED CEILING HEIGHT INDICATED ON THESE PLANS IS TO ENSURE EQUIPMENT FUNCTION IS NOT INHIBITED. CONSULT WITH YOUR LOCAL GEHC INSTALLATION SPECIALIST REGARDING ACCEPTABILITY OF OTHER CEILING HEIGHTS.
- CHECK ALL DOOR OPENINGS AND HALLWAYS FROM DELIVERY LOCATION TO WHERE EQUIPMENT IS TO BE INSTALLED TO ENSURE THE ROUTE PHYSICALLY AND STRUCTURALLY WILL ACCOMMODATE THE EQUIPMENT AS SHIPPED.
- RADIATION PROTECTION REQUIREMENTS ARE NOT INDICATED ON THIS PLAN. WHERE NEEDED PER NATIONAL OR LOCAL CODE THEY SHALL BE SPECIFIED BY A QUALIFIED RADIOLOGICAL PHYSICIST.
- THE DEVELOPMENT OF THE EQUIPMENT LAYOUT, ROOM DIMENSIONS, MECHANICAL AND ELECTRICAL SUGGESTIONS IS PREDICATED UPON THE BEST INFORMATION OBTAINABLE FROM THE SITE, COUPLED WITH THE CUSTOMER'S KNOWN DESIRES. ARCHITECTURAL OR ELECTRICAL CHANGES INCLUDING RELOCATION OF EQUIPMENT ILLUSTRATED ON THIS DRAWING IS ALLOWED ONLY WITH NOTIFICATION, IN WRITING, AND REVIEW BY GEHC SERVICE DEPARTMENT. EQUIPMENT OPERATION, SERVICEABILITY, AND RESTRICTING CABLE LENGTHS, ETC., MAKE THIS ESSENTIAL FOR A PROPER INSTALLATION. GEHC RESERVES THE RIGHT TO MAKE ON THE JOB CHANGES BECAUSE OF CUSTOMER REQUIREMENTS AND/OR OBSTACLES IN CONSTRUCTION, ETC..
- ALL WORK TO BE IN COMPLIANCE WITH NATIONAL AND LOCAL BUILDING SAFETY CODES.
- DIMENSIONS ARE TO FINISHED SURFACES OF ROOM

SITE ENVIRONMENT SPECIFICATIONS

- AMBIENT OPERATING TEMPERATURE: 55° TO 75° F [15° TO 28° C], MAXIMUM ALLOWABLE TEMPERATURE CHANGE OF 5° F [3° C] /HOUR.
- DO NOT PLACE CAMERA NEAR REGISTERS, WINDOWS OR OTHER COMPONENTS THAT COULD AFFECT TEMPERATURE LEVEL CHANGES IN CAMERA VICINITY.
- HUMIDITY: 20 TO 80 PERCENT NON-CONDENSING, MAXIMUM ALLOWABLE CHANGE OF 10 PERCENT/HOUR.
- ELECTROSTATIC DISCHARGE IS KNOWN TO CAUSE SEVERE DAMAGE TO SOPHISTICATED ELECTRONICS. STATIC CHARGES ASSOCIATED WITH LOWER HUMIDITY LEVELS (BELOW 40%) MAY INTERFERE WITH SYSTEM OPERATION.
- ALTITUDE: NOT TO EXCEED 8000 FT. [2438 m] ABOVE SEA LEVEL.
- THE ENVIRONMENT FOR THE ELECTRONICS CABINET/CPU MUST BE CONTROLLED SO THE ABOVE RESTRICTIONS ARE NOT EXCEEDED.
- BACKGROUND RADIATION SHOULD BE KEPT TO A MINIMUM. RADIOACTIVE SOURCES MUST BE KEPT IN SHIELDED CONTAINERS AND THE EXAMINATION ROOM SHIELDED FROM EXTERNAL SOURCES (FOR EXAMPLE X-RAY AND CT SYSTEMS, AND PATIENTS UNDERGOING TREATMENT).

MAGNETIC INTERFERENCE SPECIFICATIONS

- NUCLEAR CAMERA DETECTORS MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN 0.5 GAUSS TO GUARANTEE SPECIFIED IMAGING PERFORMANCE.
- NUCLEAR COMPUTER EQUIPMENT MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN 10 GAUSS TO GUARANTEE DATA INTEGRITY.
- MULTIFORMAT CAMERA MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN 3 GAUSS TO OBTAIN SPECIFIED GEOMETRIC LINEARITY.
- NUCLEAR DIAGNOSTIC CONSOLE MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN 1 GAUSS IF CONSOLE HAS A COLOR DISPLAY AND 10 GAUSS IF MONOCHROME, TO OBTAIN SPECIFIED GEOMETRIC LINEARITY AND FREEDOM FROM COLOR DISTORTION.

THE FOLLOWING ITEMS, WHICH HAVE BEEN ORDERED FROM GE HEALTHCARE, ARE TO BE INSTALLED BY THE CUSTOMER OR HIS CONTRACTOR.

GE Healthcare Technologies
 Installation Services Design Center
 Milwaukee, Wisconsin

SHEET TITLE: EQUIPMENT LAYOUT
 MODALITY TYPE: MILLENNIUM VG

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED APPARATUS, ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS. IT IS NOT TO BE USED FOR ACTUAL CONSTRUCTION PURPOSES, HOWEVER, AND THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

TYPICAL FINAL
 INSTALLATION DRAWING

PROJECT	REVISION
7-28F	00

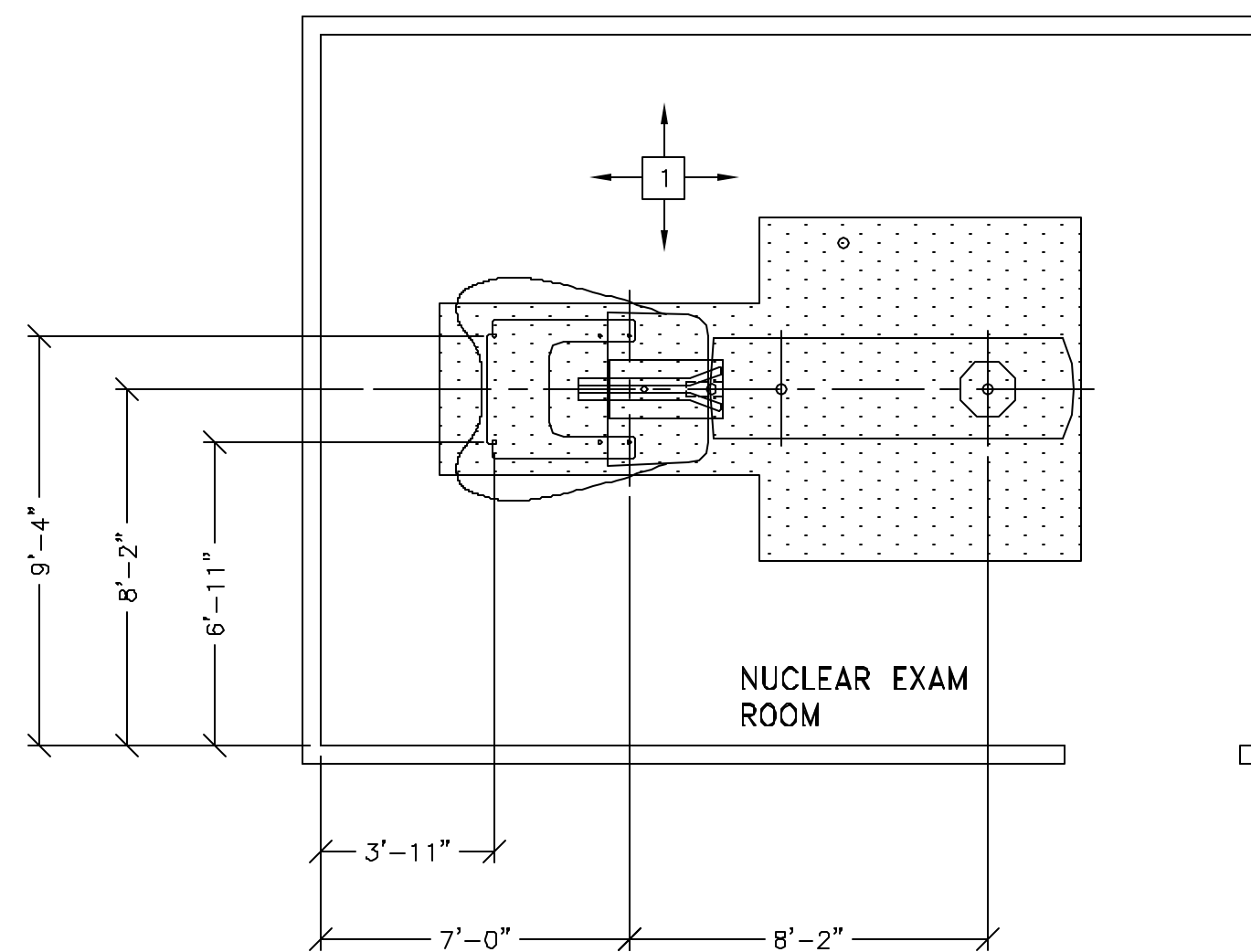
DATE: 06-10-08
 DRAWN BY: CPC
 CHECKED BY: CPC

REVISION HISTORY:

SHEET
 A1

CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS

ITEM NO.	ITEM DESCRIPTION (* INDICATES EXISTING)
<input type="checkbox"/>	
<input checked="" type="checkbox"/>	FLOOR LEVELNESS IN THE EXAM ROOM MUST BE LEVEL WITHIN 3/16 IN. (3 MM) OVER 170 IN. (4318 MM). SEE DETAIL H3000 ON SHEET S2. FLOOR FLATNESS IN THE EXAM ROOM MUST HAVE NO DEVIATIONS GREATER THAN 1/16" (1.6 MM) OVER 180 IN. (4572 MM).



NUCLEAR EXAM ROOM

STRUCTURAL NOTES

- ALL UNITS THAT ARE WALL MOUNTED OR WALL SUPPORTED ARE TO BE PROVIDED WITH SUPPORTS WHERE NECESSARY. WALL SUPPORTS ARE TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER OR HIS CONTRACTORS. SEE PLAN AND DETAIL SHEETS FOR SUGGESTED LOCATIONS AND MOUNTING HOLE LOCATIONS.
- FLOOR SLABS ON WHICH EQUIPMENT IS TO BE INSTALLED MUST BE LEVEL TO SPECIFICATIONS. (IF NOT SPECIFIED ELSEWHERE ON THIS SHEET THE FLOOR LEVELNESS SHOULD BE 1/8 IN. [3 MM] IN 10 FT. [3.05 M].)
- DIMENSIONS ARE TO FINISHED SURFACES OF ROOM.
- FOR SEISMIC REGIONS ENSURE SUPPORTS SPAN THREE MEMBERS.
- CUSTOMERS CONTRACTOR MUST PROVIDE ALL PENETRATIONS IN POST TENSION FLOORS.
- CUSTOMERS CONTRACTOR MUST PROVIDE AND INSTALL ANY NON-STANDARD ANCHORING. DOCUMENTS FOR STANDARD ANCHORING METHODS ARE INCLUDED WITH GE EQUIPMENT DRAWINGS FOR GEOGRAPHIC AREAS THAT REQUIRE SUCH DOCUMENTATION.
- CUSTOMERS CONTRACTOR MUST PROVIDE AND INSTALL HARDWARE FOR "THROUGH THE FLOOR" ANCHORING AND/OR ANY BRACING UNDER ACCESS FLOORS. THIS CONTRACTOR MUST ALSO PROVIDE FLOOR DRILLING THAT CANNOT BE COMPLETED BECAUSE OF AN OBSTRUCTION ENCOUNTERED WHILE DRILLING BY THE GE INSTALLER SUCH AS REBAR ETC.

SHEET TITLE: STRUCTURAL LAYOUT
MODALITY TYPE: MILLENIUM VG

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PROJECT TITLE:
TYPICAL FINAL
INSTALLATION DRAWING

PROJECT	REVISION
7-28F	00
DATE:	06-10-08
DRAWN BY:	CPC
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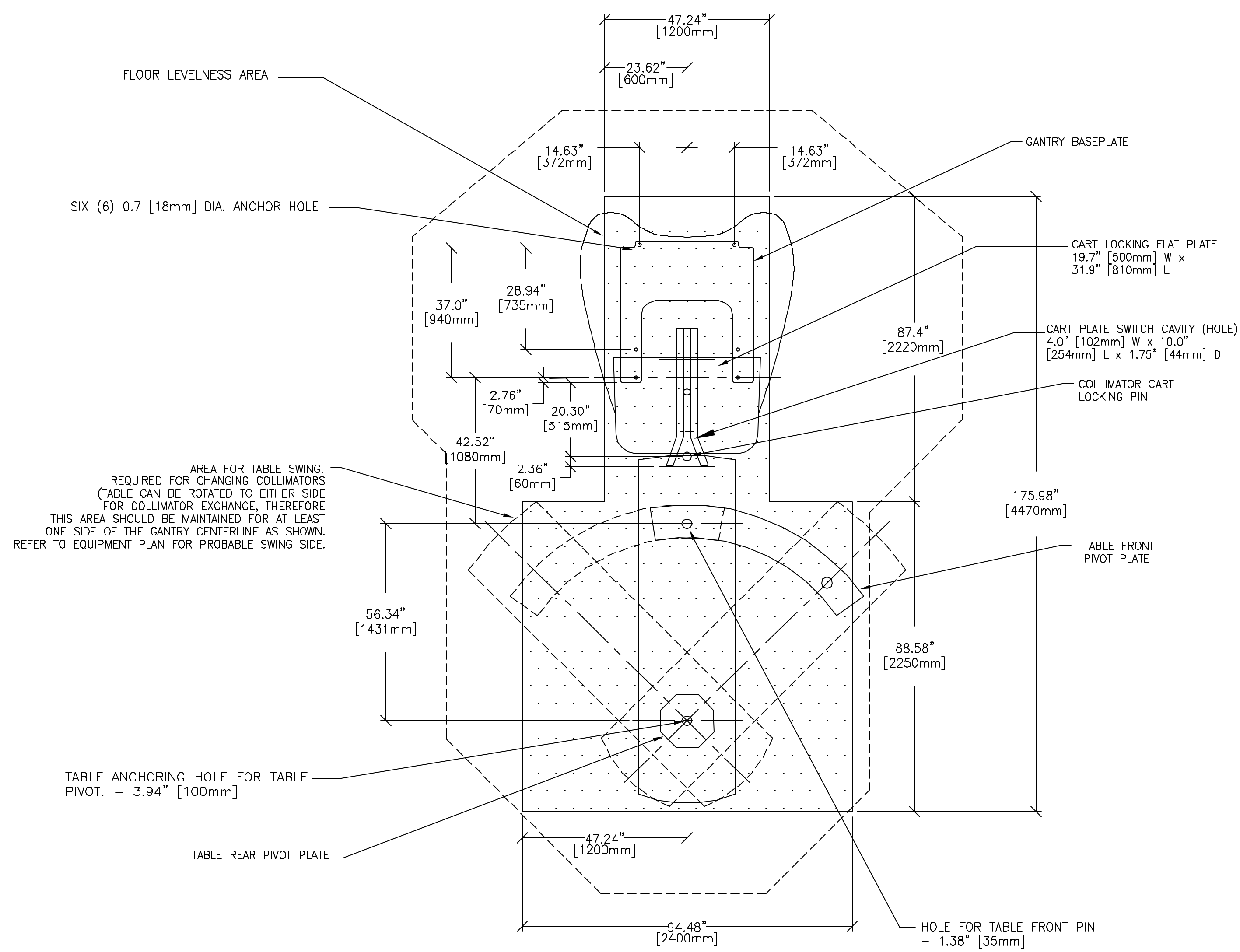
REVISION HISTORY:

SHEET
S1

GE Healthcare Technologies
Installation Services Design Center
Milwaukee, Wisconsin

FLOOR MOUNTING DETAIL: MILLENNIUM VG GANTRY (DUAL HEAD)

H30-00U
REV. DATE: 04/29/03



IF CONCRETE DEPTH IS LESS THAN 4.53\" [115mm], THE GANTRY SHOULD BE ANCHORED WITH THREADED RODS OR WITH SPECIAL SCREWS FROM BOTH SIDES.

DETAIL NOT TO SCALE

SHEET TITLE: STRUCTURAL DETAILS
MODALITY TYPE: MILLENNIUM VG
THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED APPARATUS, ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS. THE USER SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF THE EQUIPMENT TO ACTUAL CONSTRUCTION PURPOSES. HOWEVER, AND THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
**TYPICAL FINAL
INSTALLATION DRAWING**

PROJECT	REVISION
7-28F	00
DATE: 06-10-08	
DRAWN BY: CPC	
CHECKED BY: CPC	

REVISION HISTORY:

SHEET
S2

SCALE: 1/4" = 1'-0"

ELECTRICAL PLAN

RECOMMENDED CEILING HEIGHT = 8'-0"

JUNCTION POINT DESCRIPTIONS

FEEDER TABLE - MILLENNIUM VG

- CALCULATIONS BASED UPON NOMINAL VOLTAGE, WIRE SIZE IN AWG.
- RECOMMENDED FEEDER SIZES FROM POWER SOURCE TO MAIN DISCONNECT.
- THE GROUNDING CONDUCTOR WILL BE THE SAME SIZE AS THE POWER FEEDER. THIS GROUNDING WILL RUN FROM THE EQUIPMENT BACK TO THE FACILITY POWER SOURCE/MAIN GROUNDING POINT AND ALWAYS TRAVEL IN THE SAME CONDUIT WITH THE FEEDERS AND NEUTRAL.
- FOR A FULL SYSTEM UPS REFER TO ELECTRICAL DETAILS FOR UPS FEEDER WIRES.

RUN LENGTH IN FEET	POWER SUPPLY VOLTAGE	
	187-220 208 (60 Hz)	360-440 400 (60 Hz)
	SIZE OF FEEDERS AND GROUND WIRES (AWG)	
50	10	12
100	10	12
150	8	12
200	6	12
250	6	12

REV. DATE: 02/25/06

ELECTRICAL OUTLET LEGEND

CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS. HEIGHT ABOVE FLOOR DETERMINED BY LOCAL CODES UNLESS OTHERWISE SPECIFIED.

- DUPLEX HOSPITAL GRADE, DEDICATED OUTLET 120-V, SINGLE PHASE. OUTLET SAME FEEDER CIRCUIT AS "A" PANEL.
- ⊕ DUPLEX HOSPITAL GRADE, DEDICATED OUTLET 120-V, SINGLE PHASE. OUTLET 20 AMP.
- △ DEDICATED TELEPHONE LINE(S) (SEE ELECTRICAL DETAIL ELEC-1)
- ⚡ NETWORK OUTLET (SEE ELECTRICAL DETAILS ELEC-83 AND ELEC-84)

CONDUIT LEGEND

- BELOW FLOOR CONDUIT

- JUNCTION POINT NOTES**
- ALL JUNCTION BOXES, CONDUIT, DUCT, DUCT DIMERS, SWITCHES, CIRCUIT BREAKERS, ETC., ARE TO BE SUPPLIED AND INSTALLED BY CUSTOMER'S ELECTRICAL CONTRACTOR.
 - CONDUIT AND DUCT RUNS SHALL HAVE SWEEP RADIUS BENDS.
 - CONDUITS AND DUCT ABOVE CEILING OR BELOW FINISHED FLOOR MUST BE INSTALLED AS NEAR TO CEILING OR FLOOR AS POSSIBLE TO REDUCE RUN LENGTH.
 - CEILING MOUNTED JUNCTION BOXES ILLUSTRATED ON THIS PLAN MUST BE INSTALLED FLUSH WITH FINISHED CEILING.
 - ALL DUCTWORK MUST MEET THE FOLLOWING REQUIREMENTS:
 1. DUCTWORK SHALL BE METAL WITH DIVIDERS AND HAVE REMOVABLE, ACCESSIBLE COVERS.
 2. DUCTWORK SHALL BE CERTIFIED/RATED FOR ELECTRICAL POWER PURPOSES.
 3. DUCTWORK SHALL BE ELECTRICALLY AND MECHANICALLY BONDED TOGETHER IN AN APPROVED MANNER.
 4. PVC AS A SUBSTITUTE MUST BE USED IN ACCORDANCE WITH ALL LOCAL AND NATIONAL CODES.
 - ALL OPENINGS IN ACCESS FLOORING ARE TO BE CUT OUT AND FINISHED OFF WITH GROMMET MATERIAL BY THE CUSTOMER'S CONTRACTOR.
 - GENERAL CONTRACTOR TO INSERT PULL CORDS FOR ALL CABLE RUN CONDUITS BETWEEN THE EQUIPMENT ROOM AND THE OPERATOR'S CONTROL ROOM.
 - 10 FOOT PIGTAILS AT ALL JUNCTION POINTS. NO ALUMINUM OR SOLID WIRES.
 - ALL WIRING MUST BE THHN OR TFFN STRANDED COPPER THERMOPLASTIC 600 VOLT OR EQUIVALENT UNLESS OTHERWISE STATED.
 - GROUNDING IS CRITICAL TO EQUIPMENT FUNCTION AND PATIENT SAFETY. SITE MUST CONFORM TO WIRING SPECIFICATIONS SHOWN ON THIS PLAN.

PLEASE SEE BELOW FOR ADDITIONAL REQUIRED CONDUIT RUNS AND SIZES.

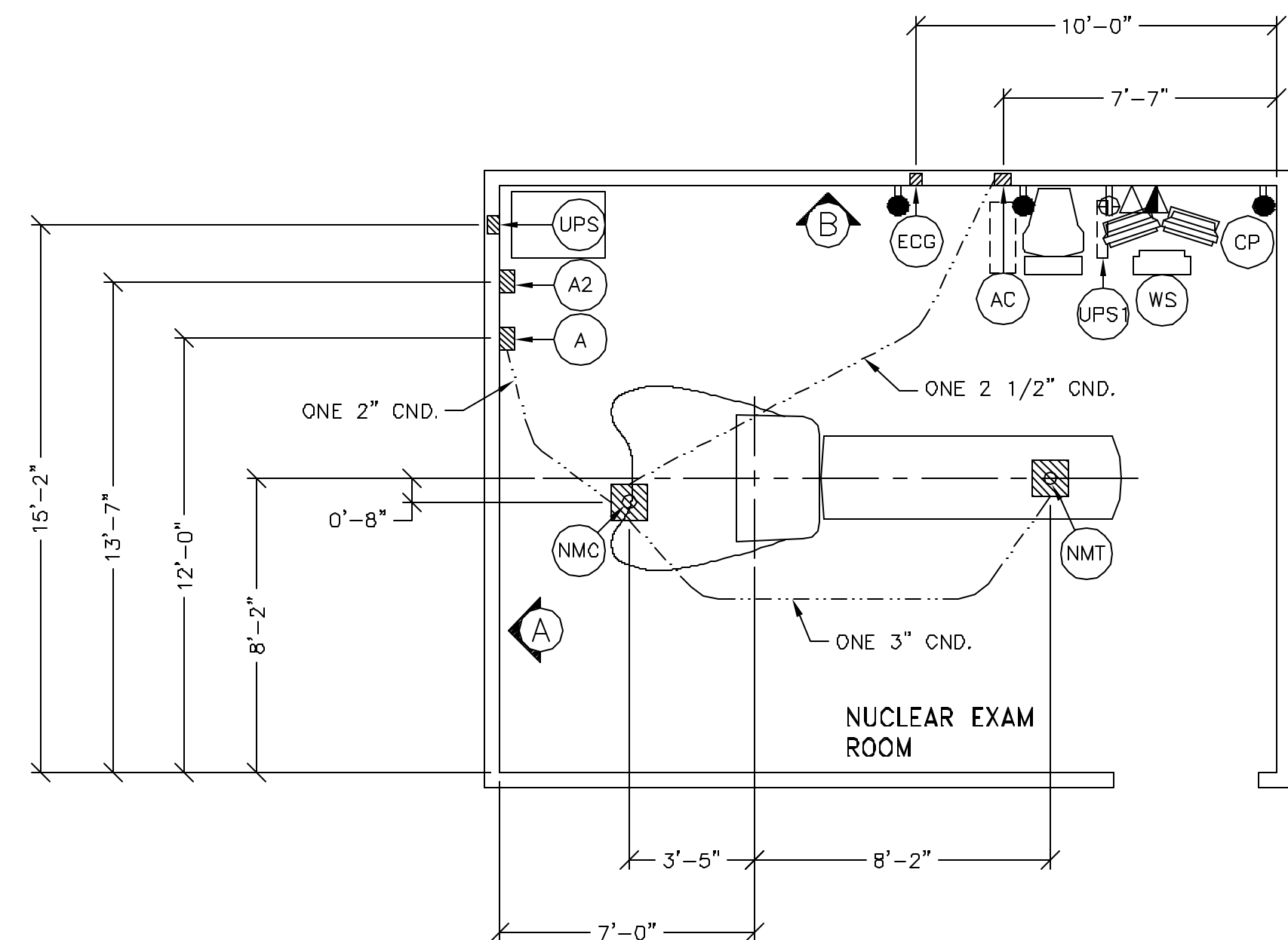
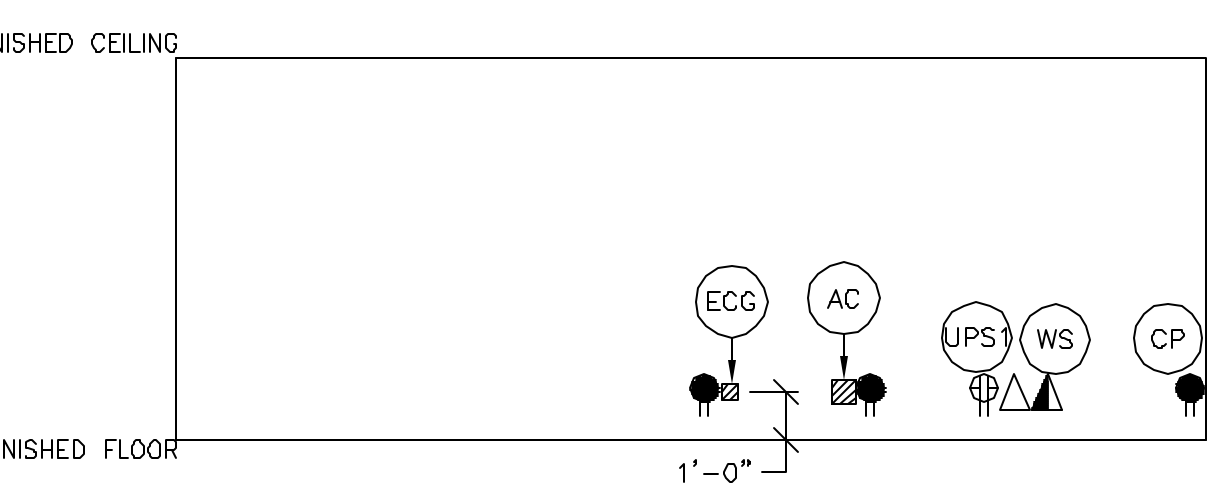
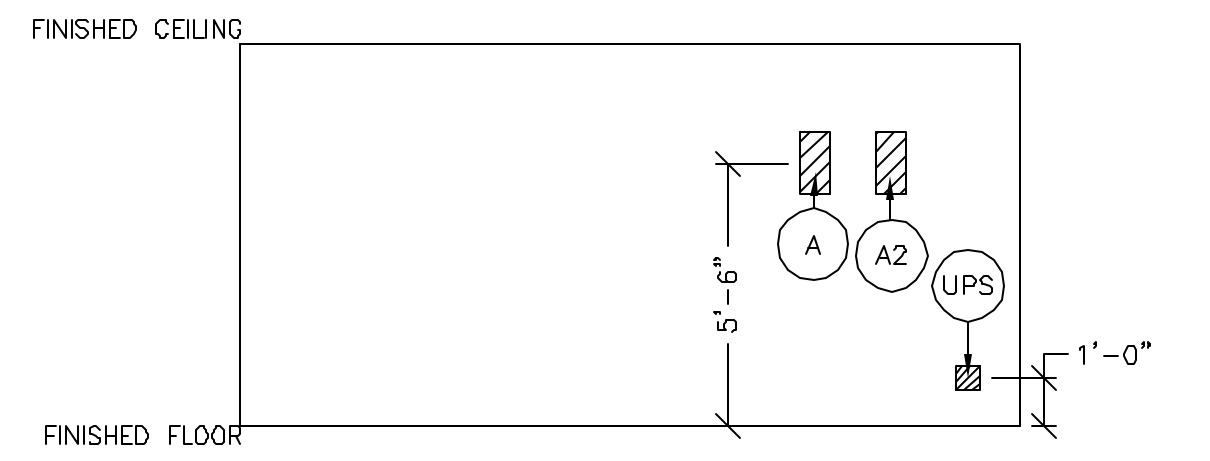
ADDITIONAL CONDUIT RUNS FOR NUCLEAR SYSTEM (BY CONTRACTOR)

CONDUITS REQUIRED FOR BASE SYSTEM (CONDUITS ARE LOCATED ABOVE CEILING)

REV DATE: 01/01/08

A2	TO UPS	CONDUIT AS REQ'D
UPS	TO A	CND AS REQ'D REFER SIZE PER FEEDER TABLE
A2	TO 208-V 3Ø 60 AMP POWER	CONDUIT AS REQ'D
ECG	TO AC	ONE 3/4" CND.

NOTE: SEE E2 PAGE FOR MAXIMUM RUN LENGTHS



POINT	DESCRIPTION	QTY.	HARDWARE	DETAIL NO., SFT. E3
A	MAIN DISCONNECT AVAILABLE FROM GEMSAR CALL 800-558-5102 OR LOCAL GE INSTALLATION PROJECT MANAGER	1	30-AMP 208V DISCONNECT WITH LOCKOUT, GEMS SAF. NO. E4805SN. NOTE: THE GANTRY IS HARDWIRED.	ELEC-123
A2	DISCONNECT	1	NEMA 1 FLUSH MOUNTED ENCLOSURE, WITH INSULATED GROUNDABLE NEUTRAL	ELEC-123
AC	ACQUISITION COMPUTER	1	60 AMP 208V 3PSI 3Ø FRONT OPERATED FUSED SAFETY SWITCH OR CIRCUIT BREAKER. LOCKABLE IN THE OFF POSITION.	ELEC-8
CP	COLOR PRINTER	1	16 X 6 X 4 IN. BOX	ELEC-8
ECG	ECG SYNCHRONIZER	1	1 1/2 IN. CHASE NIPPLE	ELEC-8
NMC	NUCLEAR MEDICINE CAMERA	1	EXTERNALLY CONNECTED	ELEC-85
NMT	IMAGING TABLE	1	4 X 4 X 4 IN. BOX	ELEC-85
UPS	UNINTERRUPTIBLE POWER SYSTEM	1	COVERPLATE	ELEC-127
UPS1	UPS CABINET	1	12 X 12 X 6 IN. BOX	ELEC-85
WS	WORKSTATION	1	18 X 12 X 6 IN. BOX	ELEC-123
			3 IN. DIA. BUSHING & LOCKNUT	
			1 IN. DIA. BUSHING & LOCKNUT	
			4 IN. DIA. BUSHING & LOCKNUT	
			1 IN. DIA. BUSHING & LOCKNUT	
			6 FT. LENGTH OF 1 IN. FLEXIBLE METAL CONDUIT	
			1 IN. DIA. BUSHING & LOCKNUT	
			EXTERNALLY CONNECTED	
			EXTERNALLY CONNECTED	

CONTRACTOR SUPPLIED AND INSTALLED WIRING

ELECTRICAL CONTRACTOR SHALL RING OUT AND TAG ALL WIRES AT BOTH ENDS.

WIRE RUN, FROM - TO	QUANTITY, WIRE SIZE/COLOR
A2 > UPS	3-BLACK, 1-WHITE, 1-GREEN (SIZE AS REQUIRED MINIMUM #6 - REFER TO ELECTRICAL DETAIL)
3 PHASE > A2	3-BLACK, 1-WHITE, 1-GREEN (SIZE AS REQUIRED MINIMUM #6 - REFER TO ELECTRICAL DETAIL)
A2 > UPS	3-BLACK, 1-WHITE, 1-GREEN (SIZE AS REQUIRED MINIMUM #8 - REFER TO ELECTRICAL DETAIL)
UPS > A	3-BLACK, 1-GREEN (REFER TO FEEDER TABLE FOR SIZE)

GE Healthcare Technologies

Installation Services Design Center

Milwaukee, Wisconsin

SHEET TITLE: ELECTRICAL LAYOUT

MODALITY TYPE: MILLENNIUM VG

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PROJECT TITLE:

TYPICAL FINAL INSTALLATION DRAWING

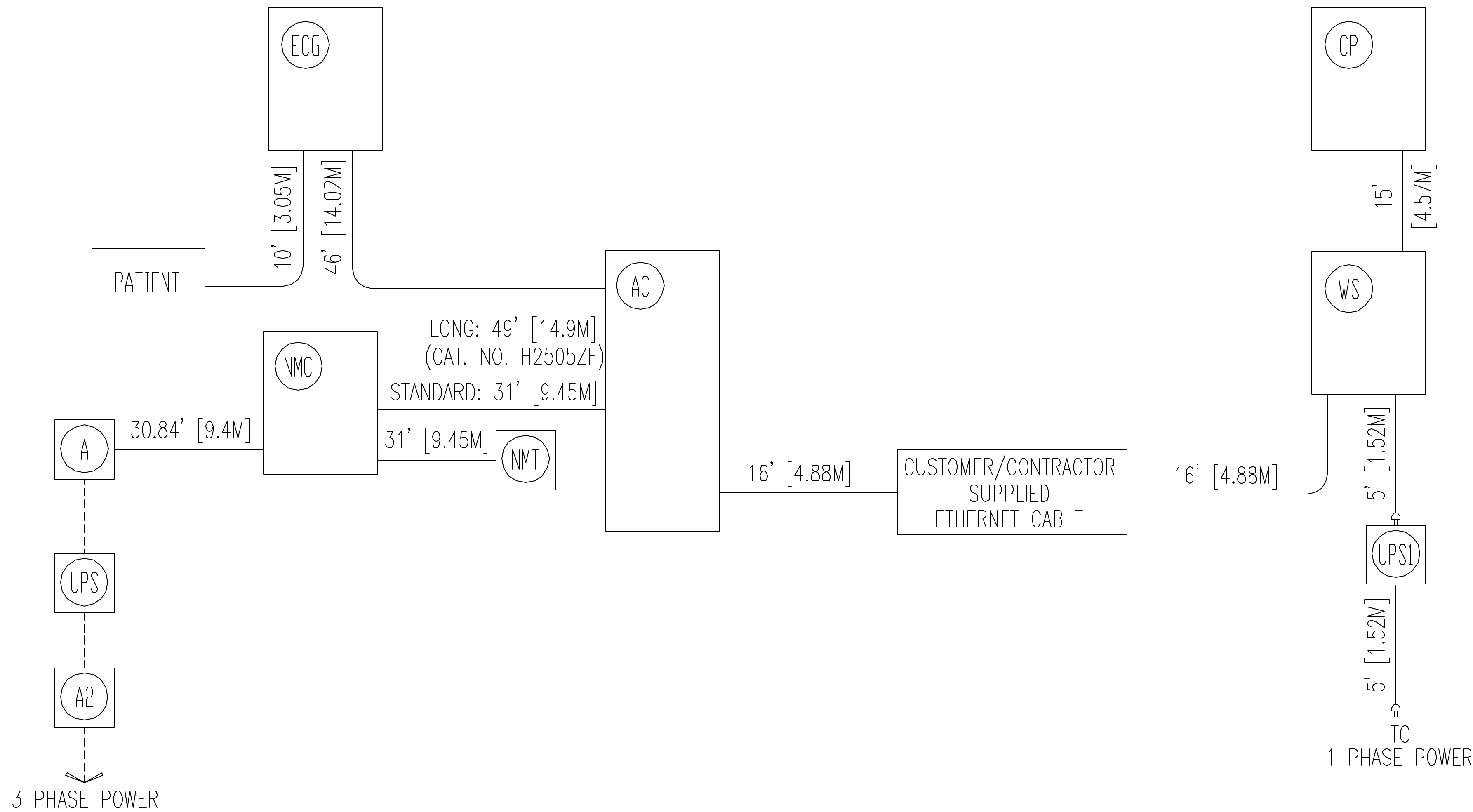
PROJECT	REVISION
7-28F	00
DATE:	06-10-08
DRAWN BY:	CPC
CHECKED BY:	CPC

REVISION HISTORY:

SHEET

E1

INTERCONNECT DIAGRAM



POWER SPECIFICATIONS

MILLENNIUM VG SYSTEM (REV. DATE 08/29/03)

VOLTAGE: PRIMARY DEDICATED THREE PHASE SOURCE IS REQUIRED FOR ALL INSTALLATIONS. RANGE OF LINE VOLTAGES: NOMINAL LINE VOLTAGE OF 208-V 60 HZ OR 400-V 60 HZ, 5 KVA. MAXIMUM DAILY VOLTAGE VARIATION MUST FALL WITHIN ONE OF THE RANGES IN TABLE A.

TABLE A ALLOWABLE INPUT VOLTAGES/CURRENT DEMAND

NOMINAL VOLTAGE	NORMAL RANGE ± 10%	MAXIMUM CURRENT (AMPS)	* MINIMUM STANDARD OVERCURRENT PROTECTION
208	187-229	22	30-A
400	360-440	12	20-A

* CIRCUIT BREAKERS SHOULD HAVE A TIME DELAY OF GREATER THAN ONE SECOND TO WITHSTAND SWITCH-ON SURGE.

TRANSIENT: MAXIMUM ALLOWABLE TRANSIENT VOLTAGE EXCURSIONS ARE 5 PERCENT OF RATED LINE VOLTAGE AT A MAXIMUM DURATION OF 5 CYCLES AND FREQUENCY OF 10 TIMES PER HOUR.

VOLTAGE TRANSIENT OR IMPULSE ON THE INCOMING POWER MUST BE HELD TO A MINIMUM. TRANSIENTS CAUSED BY LIGHTNING SURGES, LOAD SWITCHING, STATIC ELECTRICITY ETC. CAN CAUSE SCAN ABORTS OR, IN EXTREME INSTANCES, COMPONENT FAILURE IN THE COMPUTER SUBSYSTEM.

THE MAXIMUM ALLOWABLE TRANSIENT AMPLITUDE IS 2.5 TIMES THE RMS LINE VOLTAGE. (FILTERS MAY BE REQUIRED IF TRANSIENT LEVEL EXCEEDS THIS VALUE.)

REGULATION: POWER SUPPLY REGULATION MUST BE 4 PERCENT OR BETTER.

POWER SUPPLY TEST: IT IS RECOMMENDED THAT THE POWER SUPPLY BE MONITORED TO ASCERTAIN THE AVERAGE LINE VOLTAGE SURGES, SAGS, IMPULSES AND FREQUENCY OF THE SUPPLY VOLTAGE. THE ANALYSIS OF A SIMULATED LOAD, USING A POWER SYSTEMS ANALYZER CAPABLE OF THE ABOVE SPECIFICATIONS, SHOULD BE CARRIED OUT OVER A CONTINUOUS SEVEN DAY PERIOD PRIOR TO INSTALLATION. THE RESULTS OF THIS ANALYSIS SHOULD BE REVIEWED WITH THE LOCAL SERVICE REPRESENTATIVE TO DETERMINE WHETHER A VOLTAGE/FREQUENCY STABILIZER, POWER LINE PROTECTOR OR FILTERS ARE REQUIRED TO BE INSTALLED BY THE PURCHASER, AS PART OF THE PREINSTALLATION WORK, TO COMPLY WITH THE ABOVE ELECTRICAL REQUIREMENTS.

EMERGENCY POWER: EMERGENCY POWER IS NOT RECOMMENDED FOR THE SYSTEM. SERIOUS DISRUPTION OF EQUIPMENT OPERATION CAN RESULT FROM POWERLINE DISTURBANCES BY SWITCHING TO EMERGENCY POWER. IF CONTINUOUS OPERATION IS REQUIRED AN ON-LINE TYPE UPS IS RECOMMENDED. EMERGENCY POWER RECOMMENDED IS THE LIGHTING IN THE ROOM TO ALLOW SAFE EVACUATION OF THE PATIENT AND PERSONNEL.

NOTE: THESE SPECIFICATIONS APPLY TO THE BASE SYSTEM. IF AN OPTIONAL FULL SYSTEM UPS IS APPLIED WITH THIS SYSTEM THE POWER REQUIREMENTS MAY VARY.

ELECTRICAL NOTES

- NOTE 1: ALL WIRES SPECIFIED SHALL BE STRANDED, FLEXIBLE, THERMO-PLASTIC, COLOR CODED, COPPER ONLY, CUT 10 FOOT LONG AT OUTLET BOXES, DUCT TERMINATION POINTS OR STUBBED CONDUIT ENDS, UNLESS OTHERWISE SPECIFIED. ALL CONDUCTORS, POWER, SIGNAL AND GROUND, MUST BE RUN IN CONDUIT OR DUCT SYSTEM. ELECTRICAL CONTRACTOR SHALL RING OUT AND TAG ALL WIRES AT BOTH ENDS. WIRE RUNS MUST BE CONTINUOUS COPPER AND FREE FROM SPLICES.
- NOTE 2: WIRE SIZES GIVEN ARE FOR USE OF EQUIPMENT. LARGER SIZES MAY BE REQUIRED BY LOCAL CODES.
- NOTE 3: IT IS RECOMMENDED THAT ALL WIRES BE COLOR CODED, AS REQUIRED IN ACCORDANCE WITH NATIONAL AND LOCAL ELECTRICAL CODES.
- NOTE 4: CONDUIT SIZES SHALL BE VERIFIED BY THE ARCHITECT, ELECTRICAL ENGINEER OR CONTRACTOR, IN ACCORDANCE WITH LOCAL OR NATIONAL CODES.
- NOTE 5: CONVENIENCE OUTLETS ARE NOT ILLUSTRATED. THEIR NUMBER AND LOCATION ARE TO BE SPECIFIED BY OTHERS. LOCATE AT LEAST ONE CONVENIENCE OUTLET CLOSE TO THE SYSTEM CONTROL. THE POWER DISTRIBUTION UNIT AND ONE ON EACH WALL OF THE PROCEDURE ROOM. USE HOSPITAL APPROVED OUTLET OR EQUIVALENT.
- NOTE 6: GENERAL ROOM ILLUMINATION IS NOT ILLUSTRATED. CAUTION SHOULD BE TAKEN TO AVOID EXCESSIVE HEAT FROM OVER-HEAD SPOTLIGHTS. DAMAGE CAN OCCUR TO CEILING MOUNTING COMPONENTS AND WIRING IF HIGH WATTAGE BULBS ARE USED. RECOMMEND LOW WATTAGE BULBS NO HIGHER THAN 75 WATTS AND USE DIMMER CONTROLS (EXCEPT MR). DO NOT MOUNT LIGHTS DIRECTLY ABOVE AREAS WHERE CEILING MOUNTED ACCESSORIES WILL BE PARKED.
- NOTE 7: ROUTING OF CABLE DUCTWORK, CONDUITS ETC., OTHER THAN SHOWN ON THIS DRAWING MAY RESULT IN THE NEED FOR GREATER THAN STANDARD CABLE LENGTHS (REFER TO THE INTERCONNECTION DIAGRAM FOR MAXIMUM USABLE LENGTHS POINT TO POINT).
- NOTE 8: CONDUIT TURNS TO HAVE LARGE, SWEEPING BENDS WITH MINIMUM RADIUS IN ACCORDANCE WITH NATIONAL AND LOCAL ELECTRICAL CODES.
- NOTE 9: A SPECIAL GROUNDING SYSTEM IS REQUIRED IN ALL PROCEDURE ROOMS BY SOME NATIONAL AND LOCAL CODES. IT IS RECOMMENDED IN AREAS WHERE PATIENTS MIGHT BE EXAMINED OR TREATED UNDER PRESENT, FUTURE, OR EMERGENCY CONDITIONS. CONSULT THE GOVERNING ELECTRICAL CODE AND CONFER WITH APPROPRIATE CUSTOMER ADMINISTRATIVE PERSONNEL TO DETERMINE THE AREAS REQUIRING THIS TYPE OF GROUNDING SYSTEM.
- NOTE 10: THE MAXIMUM POINT TO POINT DISTANCES ILLUSTRATED ON THIS DRAWING MUST NOT BE EXCEEDED.
- NOTE 11: PHYSICAL CONNECTION OF PRIMARY POWER TO GE EQUIPMENT IS TO BE MADE BY CUSTOMERS ELECTRICAL CONTRACTOR WITH THE SUPERVISION OF A GE REPRESENTATIVE. THE GE REPRESENTATIVE WOULD BE REQUIRED TO IDENTIFY THE PHYSICAL CONNECTION LOCATION, AND INSURE PROPER HANDLING OF GE EQUIPMENT.

DIAGRAM KEY

- CUSTOMER/CONTRACTOR SUPPLIED WIRING. ROUTE IN ADEQUATE CONDUIT OR RACEWAY.
- GE FURNISHED CABLE RUNS. ROUTE IN EMPTY CONDUIT OR RACEWAY.
- 59' [18M] MAXIMUM RUN LENGTH BETWEEN JUNCTION POINTS. Feet [Meters]

THIS SHEET IS PART OF THE DOCUMENT SET LISTED ON SHEET C1 AND SHOULD NOT BE SEPARATED

GE Healthcare Technologies
Installation Services Design Center
Milwaukee, Wisconsin



SHEET TITLE: ELECTRICAL SPECIFICATIONS
MODALITY TYPE: MILLENNIUM VG

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED APPARATUS, ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS. IT IS NOT TO BE USED FOR CONSTRUCTION PURPOSES. IT IS NOT TO BE USED FOR ACTUAL CONSTRUCTION PURPOSES, HOWEVER, AND THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

TYPICAL FINAL
INSTALLATION DRAWING

PROJECT TITLE:

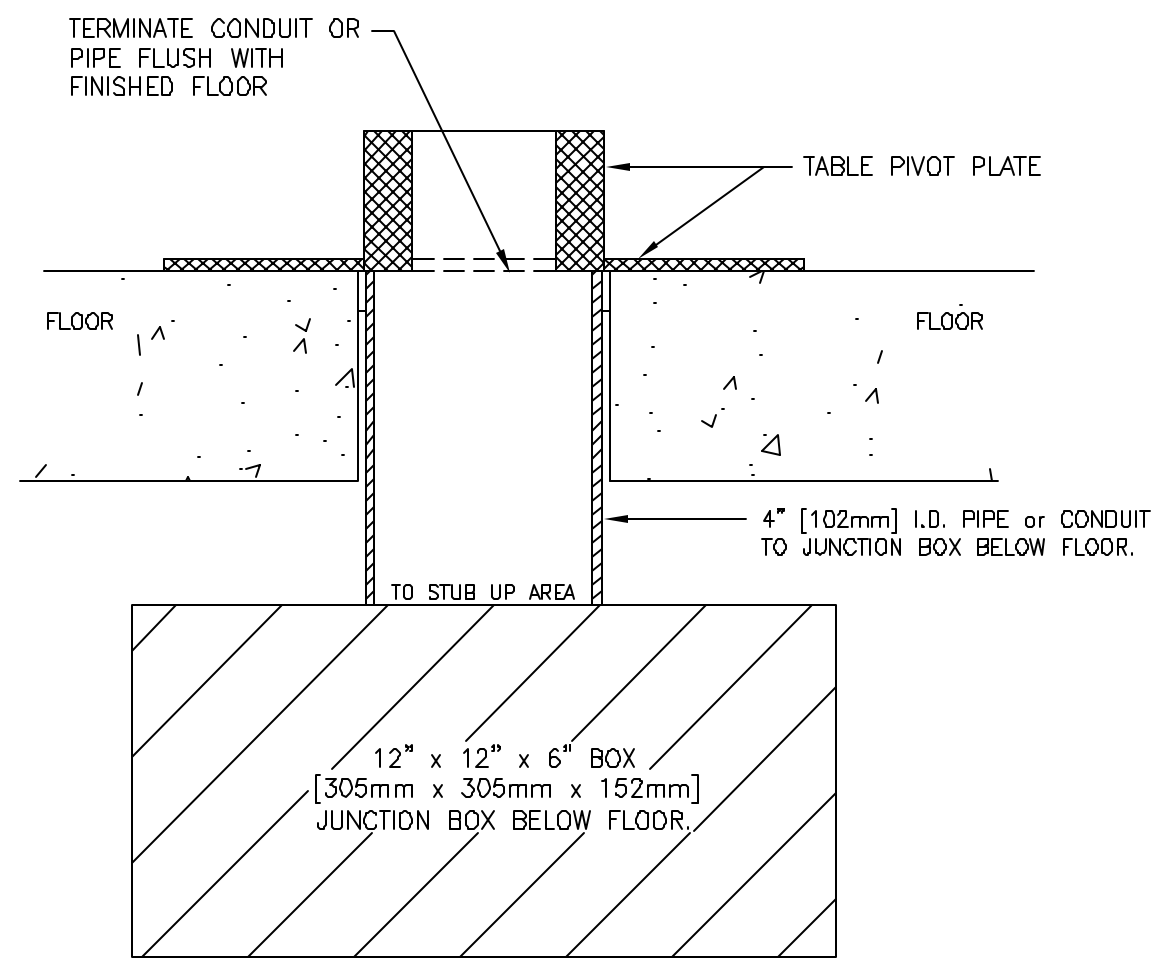
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DATE: 06-10-08	
DRAWN BY: CPC	
CHECKED BY: CPC	

REVISION HISTORY:

SHEET
E2

ELECTRICAL DETAIL
TABLE INTERCONNECT DETAIL

ELEC-127
REV. DATE: 02/21/07



DETAIL NOT TO SCALE

ELECTRICAL DETAIL
INSITE CONNECTION (TYPICAL)

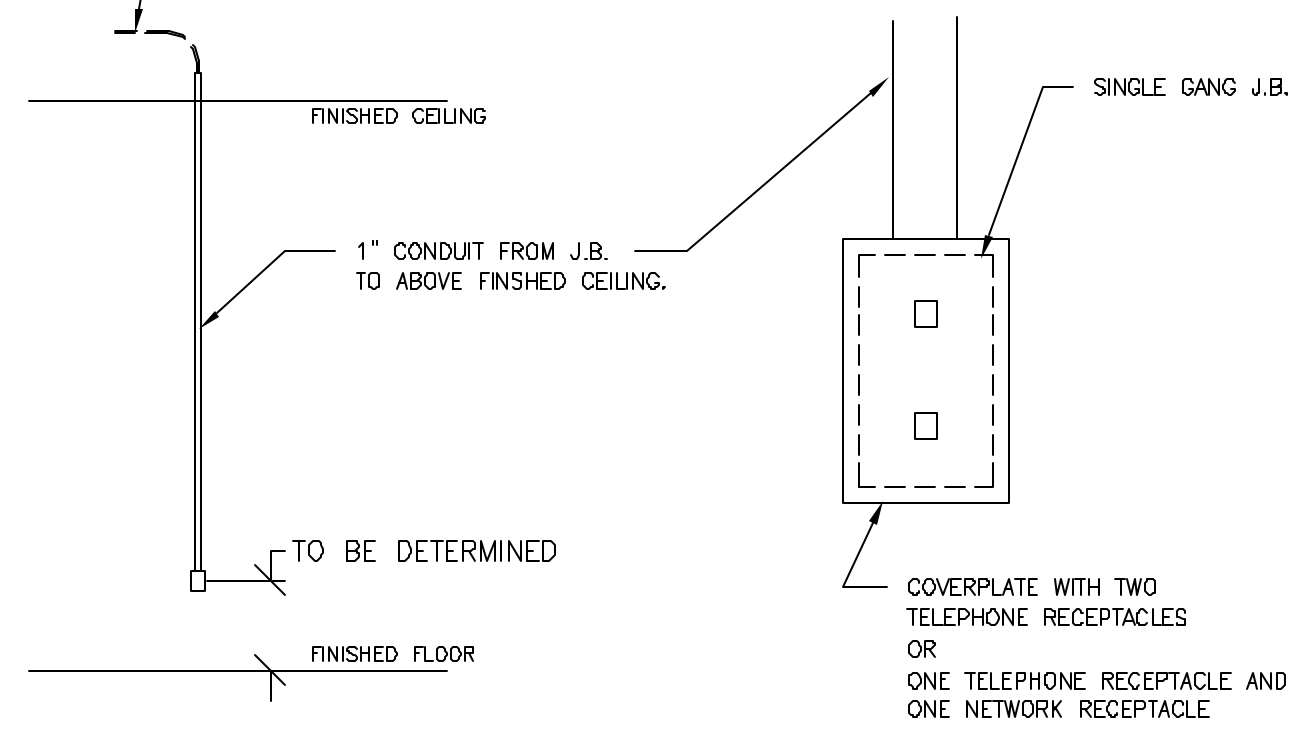
ELEC-1
REV. DATE: 04/24/02

ONE OF THE FOLLOWING TWO SELECTIONS MUST BE INSTALLED AT THE LOCATION SHOWN ON THE ELECTRICAL PLAN (SHEET E1) FOR GE INSITE CONNECTION BASED UPON SYSTEM CONFIGURATION:

A) ONE INTERNET ACCESSIBLE VIRTUAL PRIVATE NETWORK (VPN) CONNECTION WITH A STATIC IP ADDRESS, AND ONE TELEPHONE LINE - DEDICATED-DIRECT-DIALING, VOICE GRADE.

OR

B) TWO TELEPHONE LINES - ONE DEDICATED DIRECT-DISTANCE-DIALING, VOICE GRADE AND ONE A DEDICATED DATA LINE.

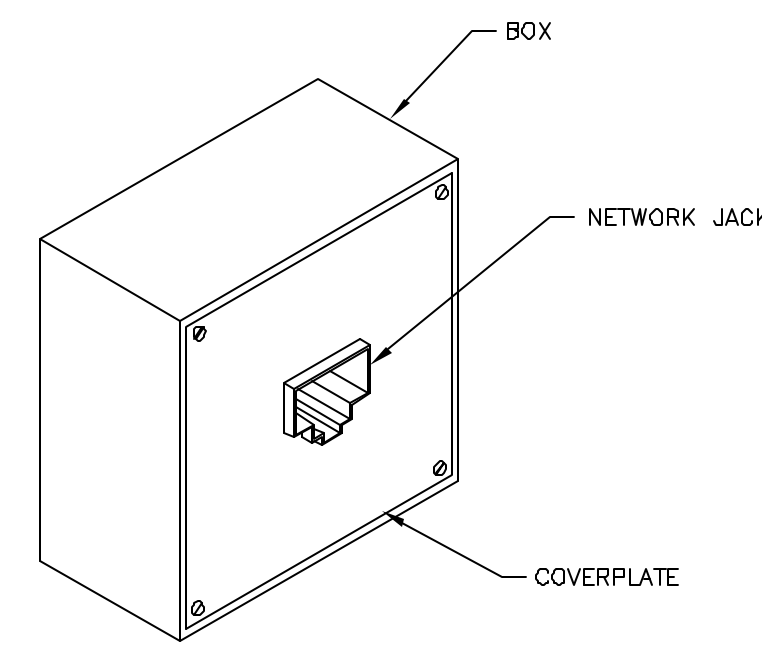


ALL ITEMS ILLUSTRATED ARE TO BE FURNISHED AND INSTALLED BY CUSTOMER OR THEIR CONTRACTOR.

DETAIL NOT TO SCALE

ELECTRICAL DETAIL
BOX WITH COVERPLATE AND NETWORK JACK

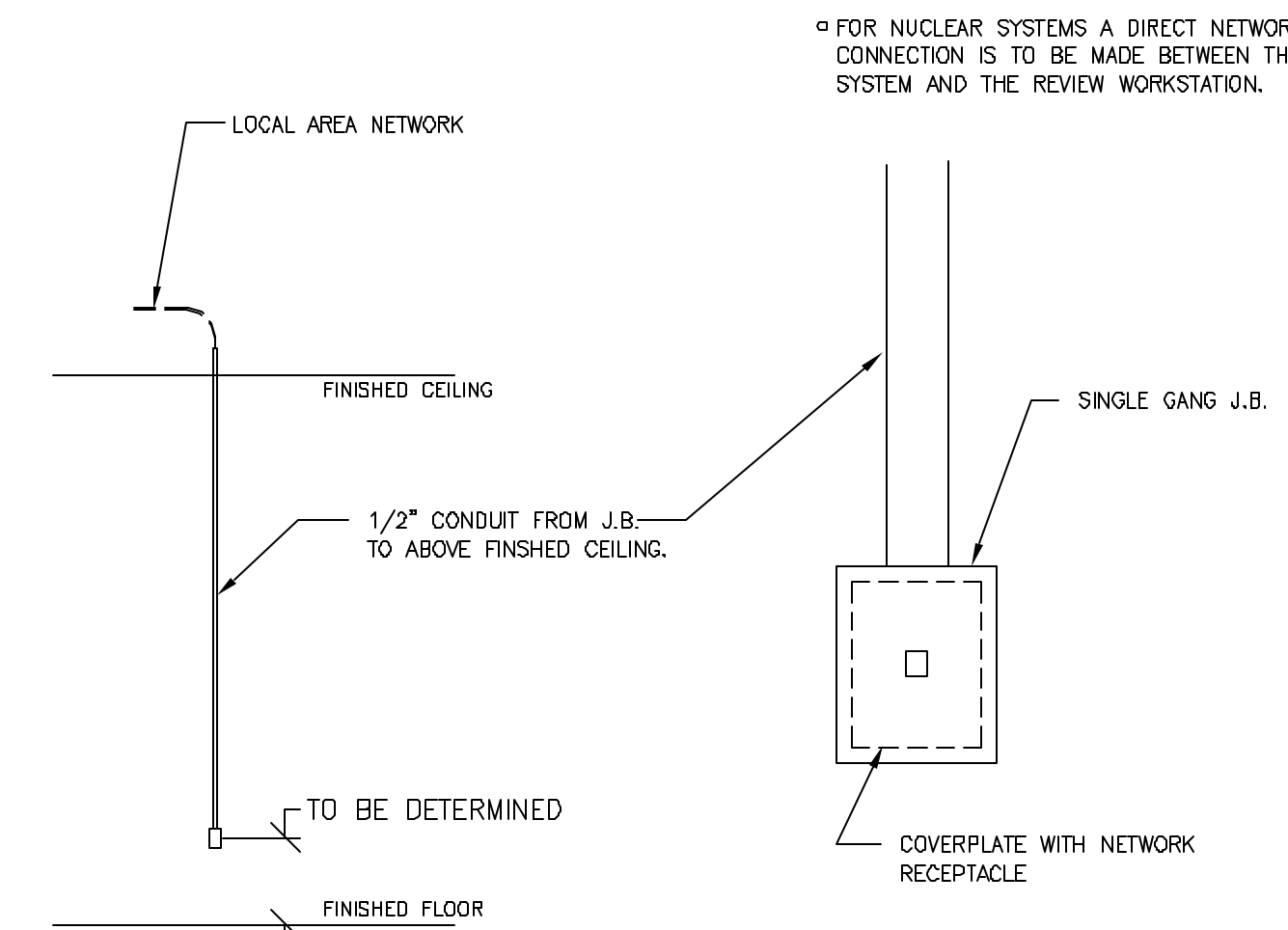
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REV. DATE: 10/06/98



DETAIL NOT TO SCALE

ELECTRICAL DETAIL
NETWORK CONNECTION (TYPICAL)

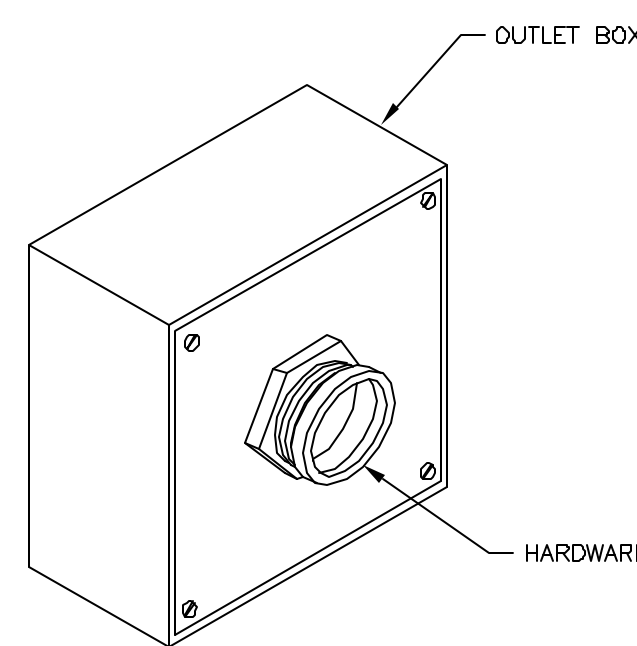
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REV. DATE: 03/06/04



DETAIL NOT TO SCALE

ELECTRICAL DETAIL
BOX WITH COVERPLATE (TYPICAL)

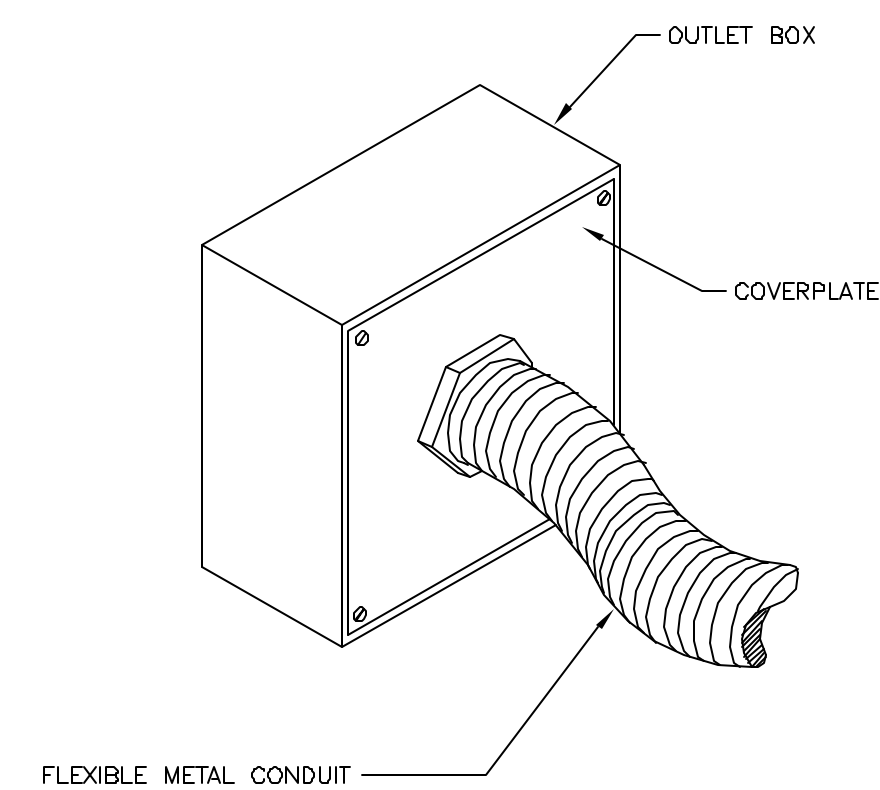
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REV. DATE: 09/30/94



DETAIL NOT TO SCALE

ELECTRICAL DETAIL
BOX WITH COVERPLATE (TYPICAL)

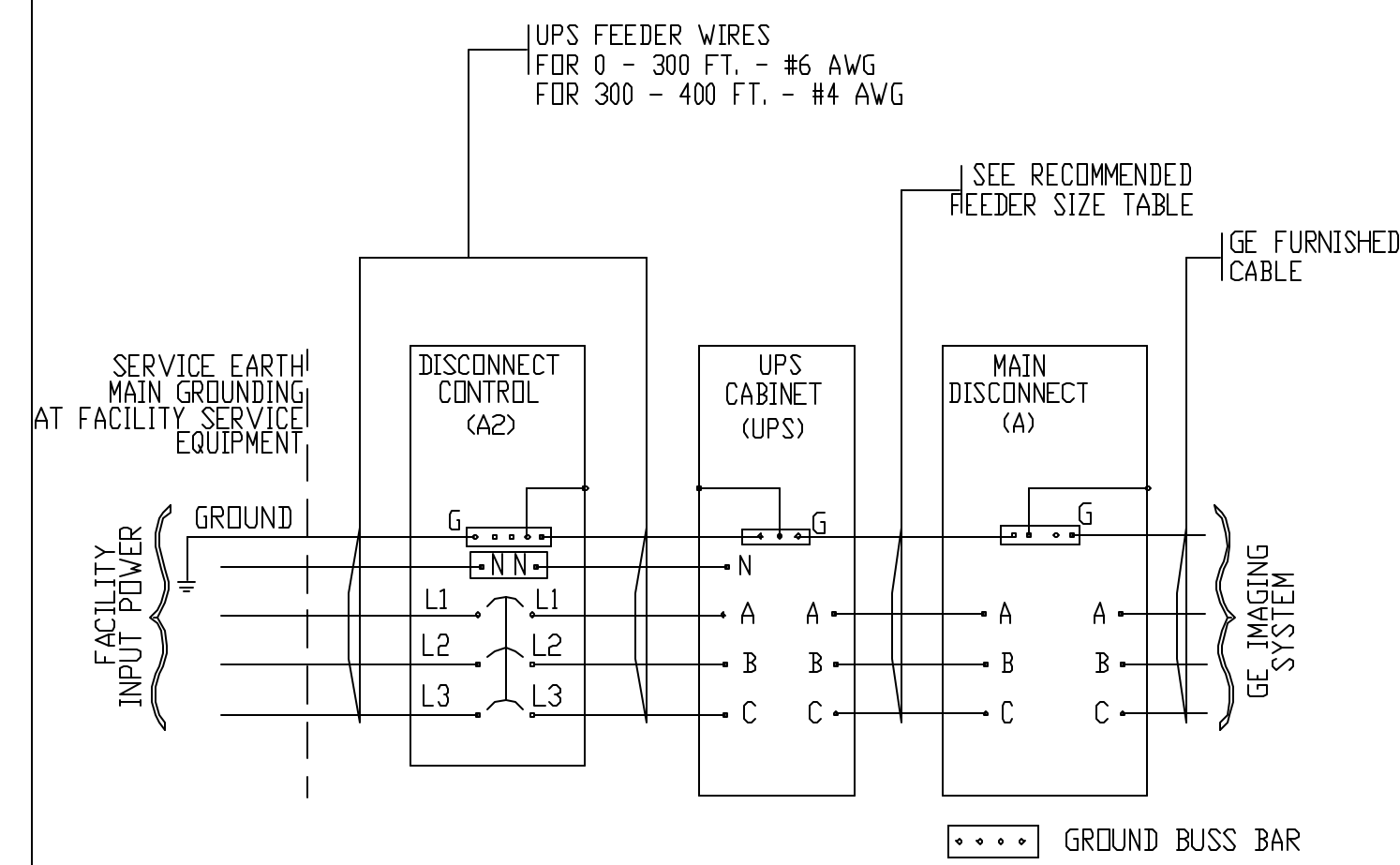
ELEC-71
REV. DATE: 06/04/96



DETAIL NOT TO SCALE

ELECTRICAL DETAIL
UPS SETUP CONNECTION

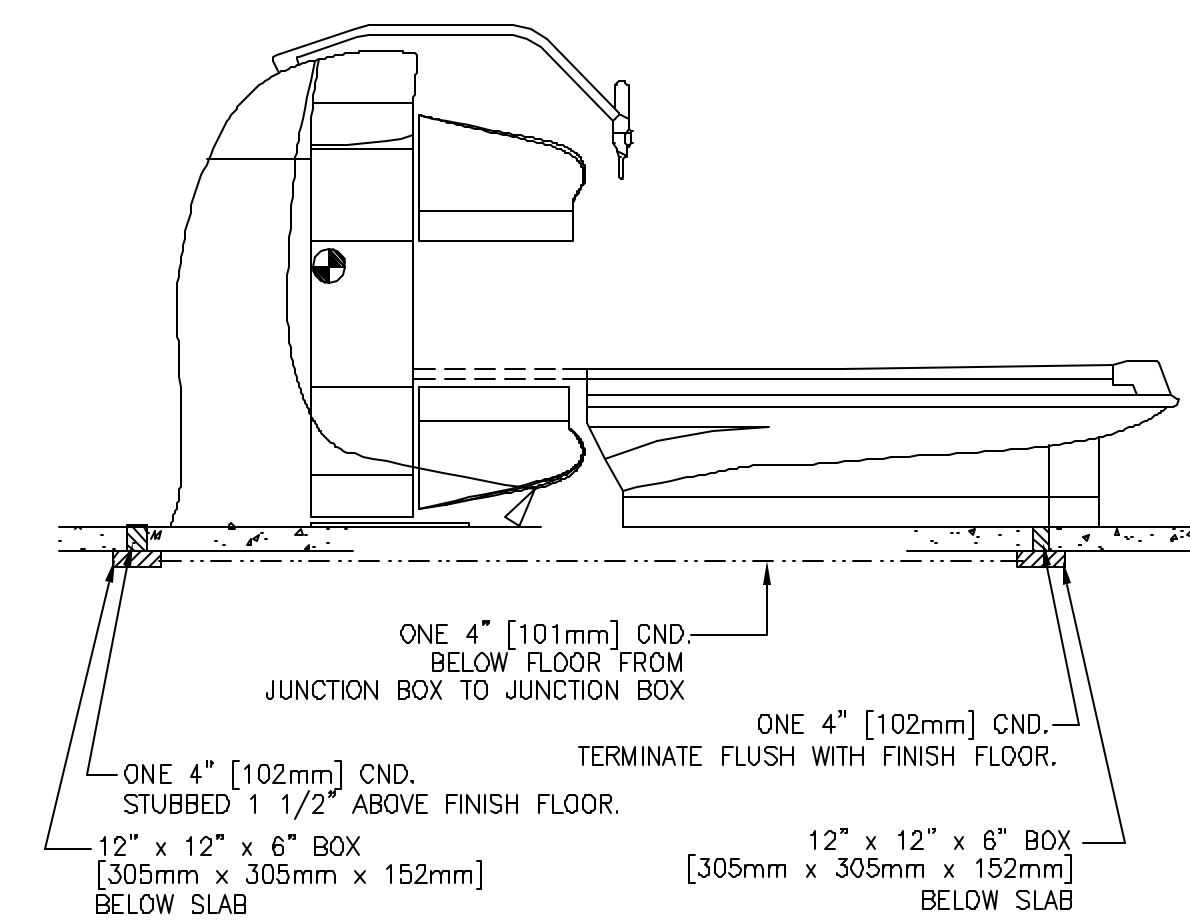
ELEC-123
REV. DATE: 03/26/03



REFER TO VENDOR DOCUMENTATION FOR COMPLETE INFORMATION.

ELECTRICAL DETAIL
MILLENNIUM BOX MOUNTING

ELEC-85
REV. DATE: 06/14/07



DETAIL NOT TO SCALE

SHEET TITLE: ELECTRICAL DETAILS
MODALITY TYPE: MILLENNIUM VG

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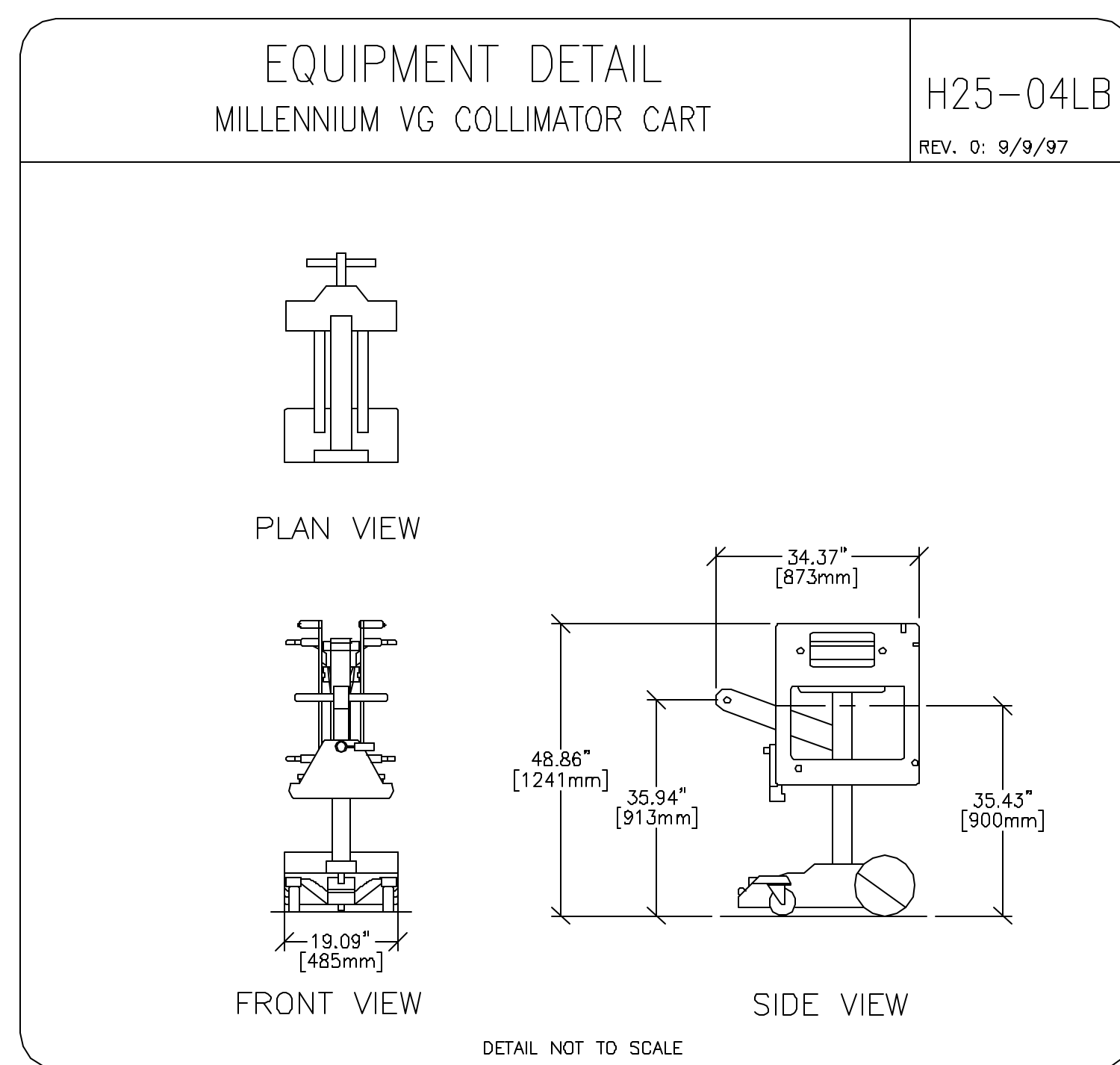
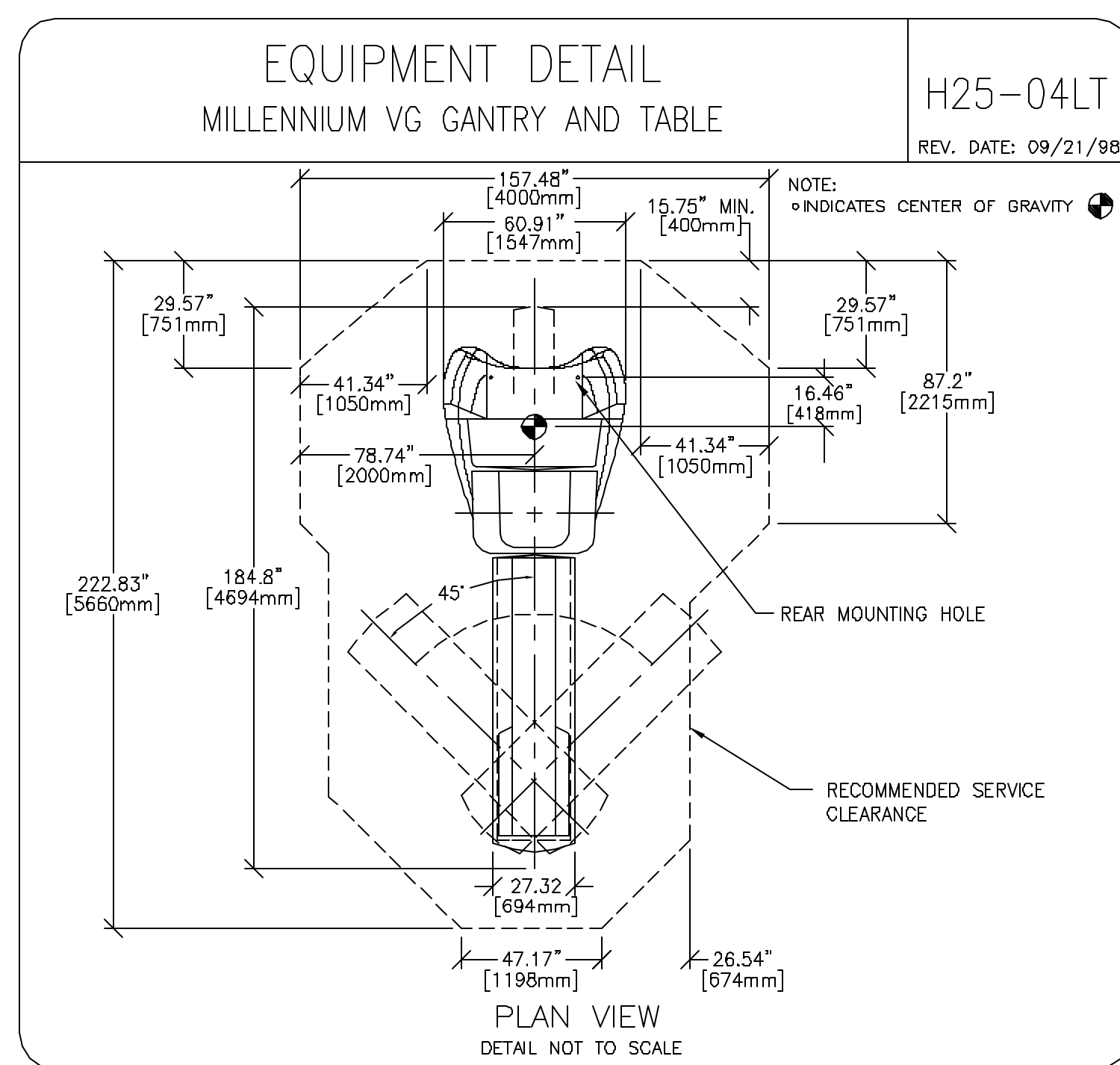
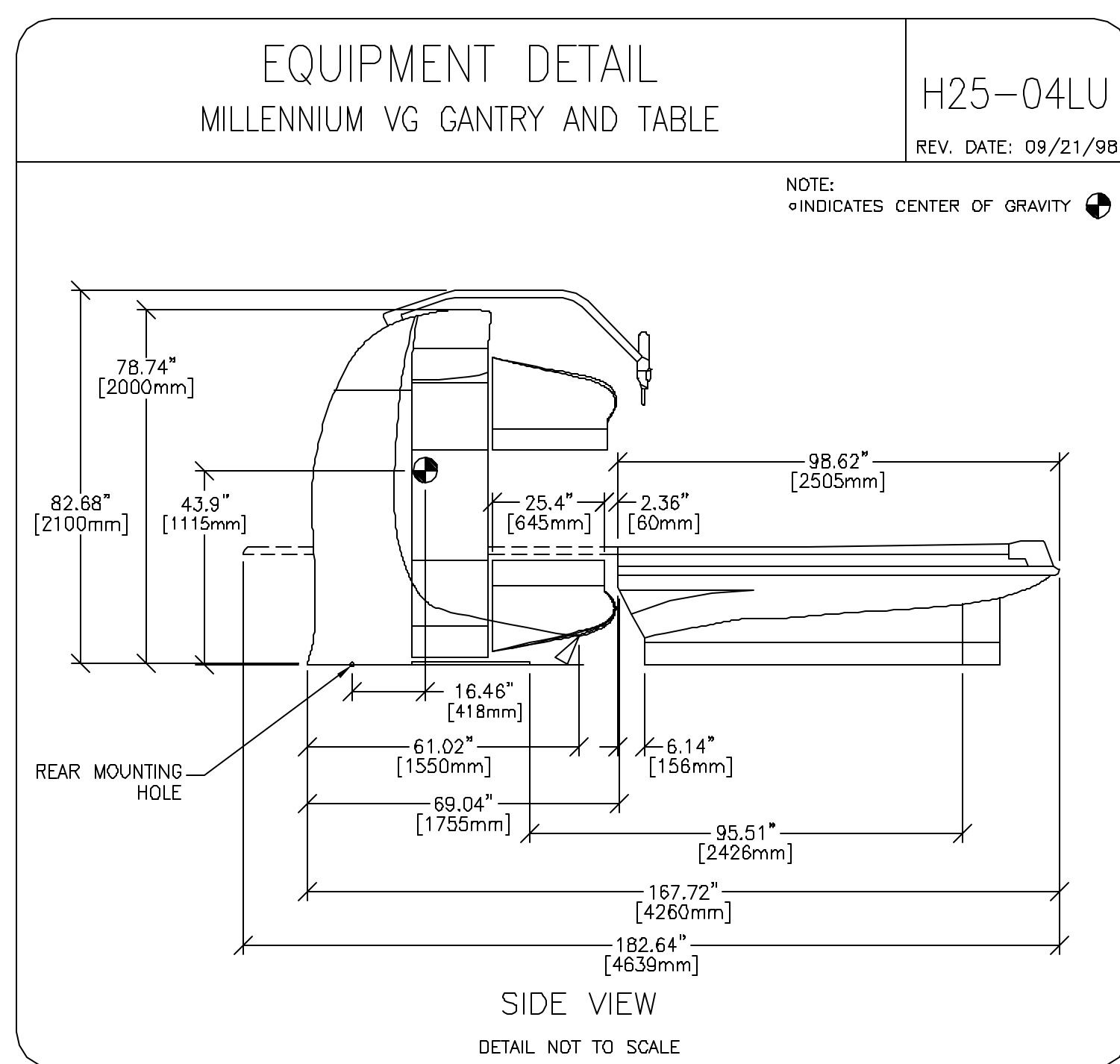
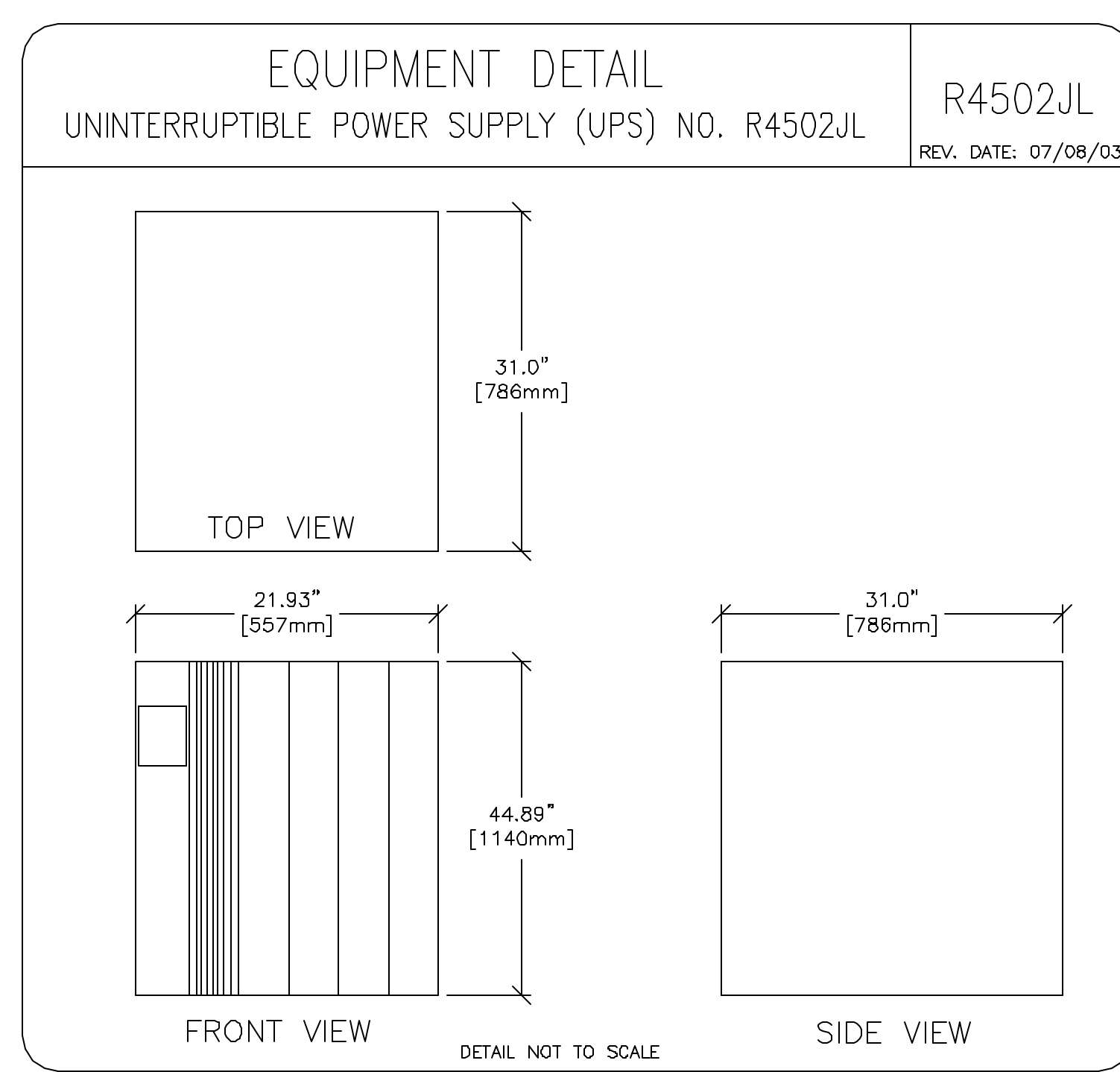
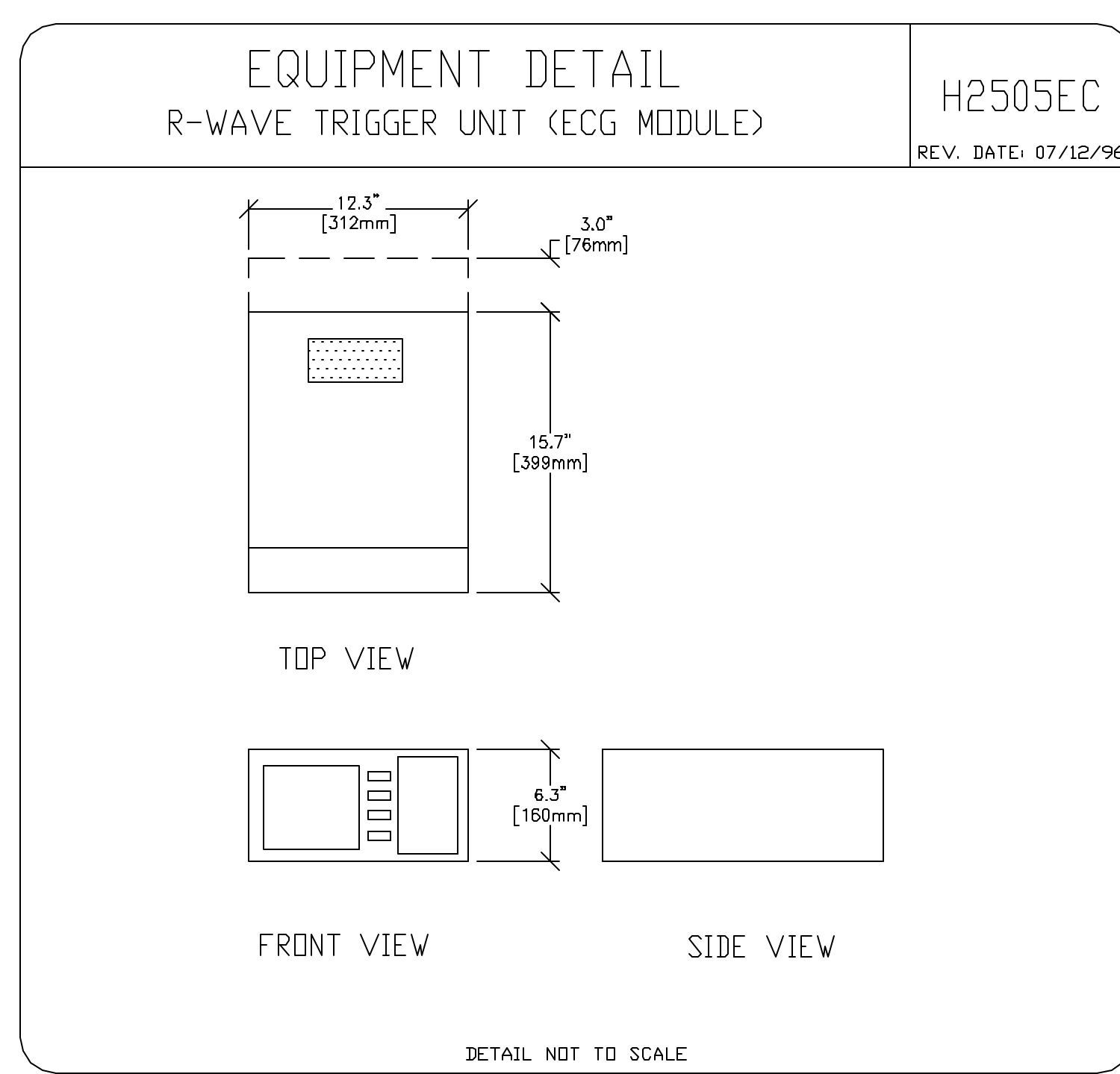
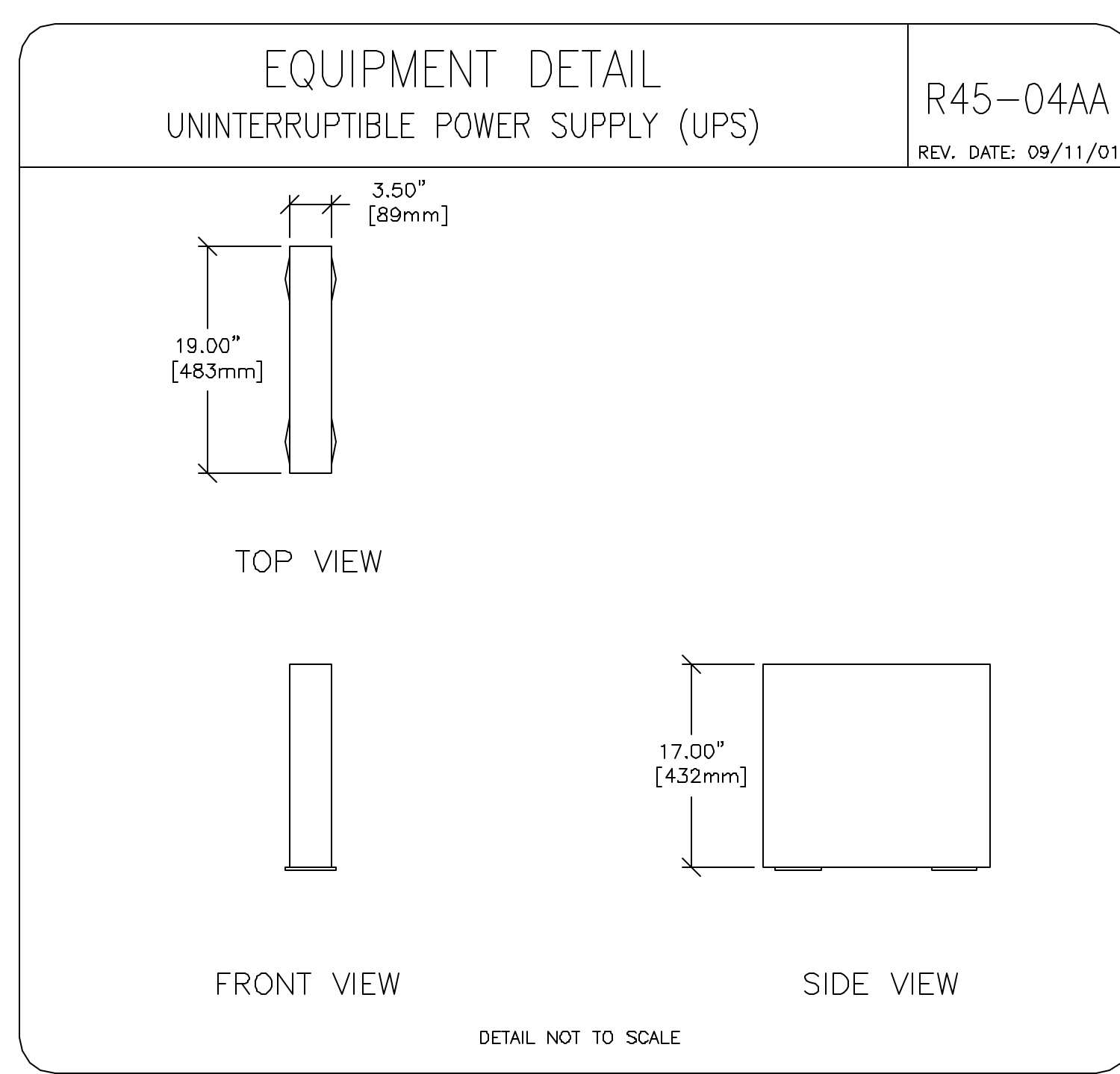
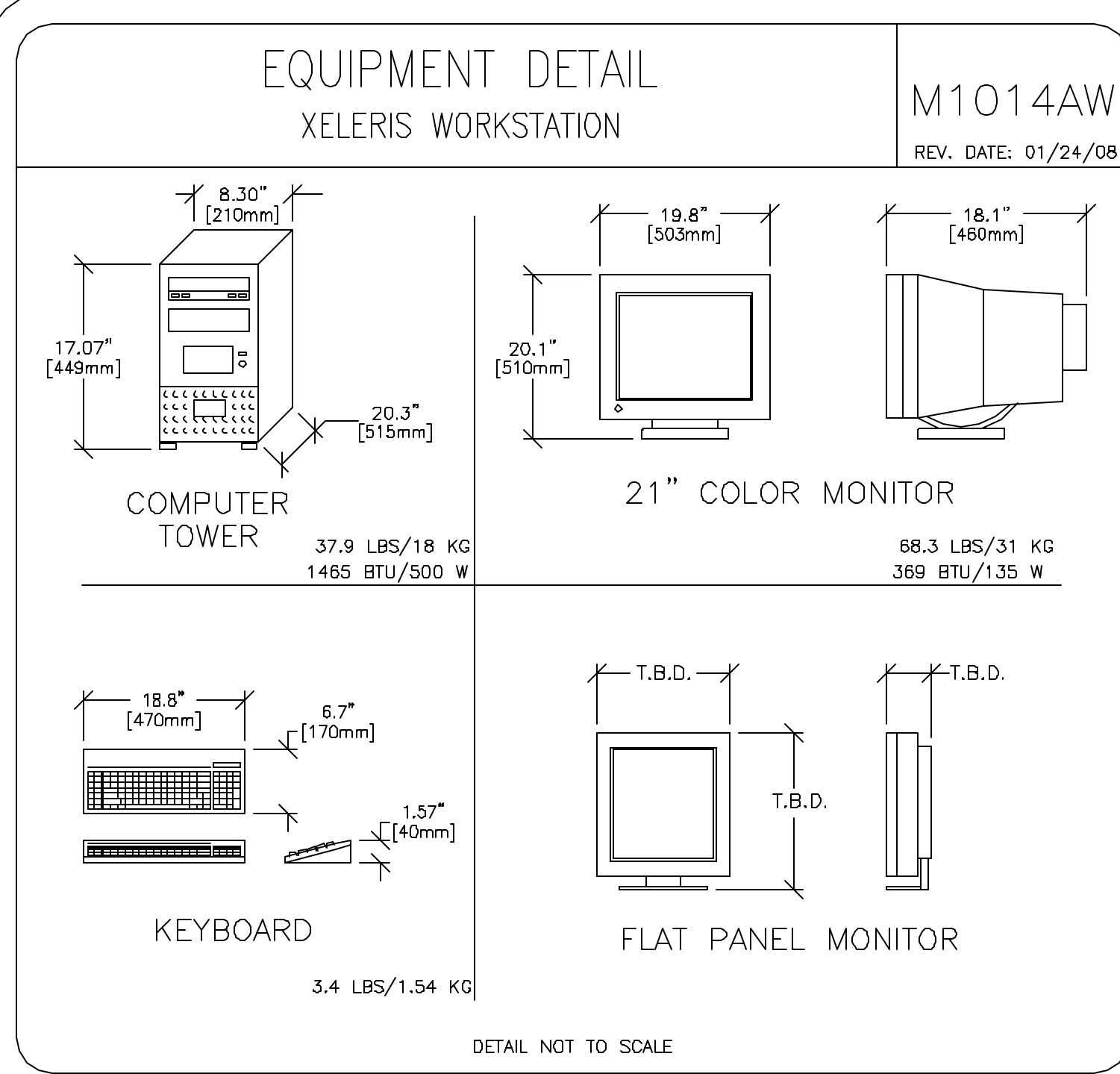
REVISION HISTORY:

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SHEET
E3



GE Healthcare Technologies
Installation Services Design Center
Milwaukee, Wisconsin

SHEET TITLE: EQUIPMENT DETAILS
MODALITY TYPE: MILLENNIUM VG

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PROJECT TITLE:
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INSTALLATION DRAWING**

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7-28F	00
DATE: 06-10-08	
DRAWN BY: CPC	
CHECKED BY: CPC	

REVISION HISTORY:

SHEET
D1